

**FINDING OF NO SIGNIFICANT IMPACT
MULTIPLE PROJECTS
LAUGHLIN AIR FORCE BASE, TEXAS**

AGENCY: United States Air Force

PURPOSE: The 47th Flying Training Wing (47 FTW) at Laughlin Air Force Base (AFB) has prepared an environmental assessment (EA) for the construction of multiple projects at Laughlin AFB. This EA has been accomplished pursuant to the National Environmental Policy Act (NEPA); the Council on Environmental Quality regulations implementing the NEPA; Department of Defense (DoD) Directive 6050.1, *Environmental Effects in the United States of DoD Actions*; and Air Force Instruction (AFI) 32-7061, *The Environmental Impact Analysis Process*; and 32 Code of Federal Regulations (CFR) Part 989 *Environmental Impact Analysis Process*.

PROPOSED ACTION: The Air Force must maintain the highest level of quality education and training for its force structure. Currently, certain facilities at Laughlin AFB are undersized or inadequately configured to maintain existing mission requirements and support functions. Replacement and/or upgrade of these facilities are needed to enable the installation to accomplish its mission and meet the personnel support requirements. The Air Force is proposing to construct three new facilities and modify three existing facilities to improve the ability of Laughlin AFB to support the Specialized Undergraduate Pilot Training (SUPT) Program conducted at the base. In addition, seven old, deteriorated buildings on the installation would be demolished in association with the new construction activities. The Air Force is also proposing to construct various facilities as part of the modification to the existing Laughlin Southwinds Marina Complex. There would be some demolition activities associated with the proposed efforts at the marina complex. An alternative siting scenario was developed for the proposed facilities at the marina complex. Conversely, the Air Force could select to take no action (no-action alternative).

FORESEEABLE ACTIONS: Foreseeable actions include the other construction and demolition projects across Laughlin AFB.

SUMMARY OF FINDINGS: This EA evaluated the environmental sensitivity of Laughlin AFB with regard to the proposed projects. Potential impacts are summarized below.

Noise. Demolition and construction activities in the vicinity of the each project location will result in a minor temporary increase in noise levels. Short-term noise created by the proposed action will not significantly impact sensitive receptors on, or adjacent to Laughlin AFB or Laughlin Southwinds Marina Complex. There will be no long-term noise impacts. Cumulative impacts as a result of the proposed action and other foreseeable actions will not be significant.

Air Quality. Emissions of all pollutants will be less than 250 tons per year (tpy) combined; therefore, the proposed action will not be considered regionally significant. The cumulative emissions of all pollutants associated with the proposed action and other foreseeable actions will be less than 250 tpy combined, and therefore, will not be considered regionally significant.

Earth Resources. There will be limited soil disturbing activities from the proposed construction and demolition activities. There will be no significant cumulative impacts to earth resources as a result of the proposed and other foreseeable actions.

Report Documentation Page				Form Approved OMB No. 0704-0188	
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1. REPORT DATE 23 JUL 2006		2. REPORT TYPE		3. DATES COVERED 00-00-2006 to 00-00-2006	
4. TITLE AND SUBTITLE Environmental Assessment: Multiple Projects at Laughlin Air Force Base, Texas				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Science Applications International Corporation (SAIC),1710 SAIC Drive,McLean,VA,22102				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT The Air Force must maintain the highest level of quality education and training for its force structure. Currently, certain facilities at Laughlin AFB are undersized or inadequately configured to maintain existing mission requirements and support functions. Replacement and/or upgrade of these facilities are needed to enable the installation to accomplish its mission and meet the personnel support requirements. The Air Force is proposing to construct three new facilities and modify three existing facilities to improve the ability of Laughlin AFB to support the Specialized Undergraduate Pilot Training (SUPT) Program conducted at the base. As part of this effort, seven old, deteriorated buildings on the installation would be demolished in association with the new construction activities. In an effort to upgrade and replace inadequate facilities to meet the current demand, the Air Force is proposing to construct various facilities as part of the modification to the existing Laughlin Southwinds Marina Complex. There would be some demolition activities associated with the proposed efforts at the marina complex. An alternative siting scenario was developed for the proposed facilities at the marina complex. Conversely, the Air Force could select to take no action (no-action alternative). The following biophysical resources were identified for study at Laughlin AFB: noise, air quality, earth resources, water resources, hazardous materials and hazardous waste biological resources, utilities and infrastructure, and socioeconomics.					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 143	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Water Resources. The proposed action will decrease 1.08 acres of impervious cover on the base. The decrease will equate to a minor decrease stormwater runoff for the base. The construction and demolition projects at the marina complex will be expected to increase stormwater runoff by 34.4 cubic feet per second (cfs). The increase in stormwater runoff will be within the design capacity of Lake Amistad.

The decrease in impervious cover and subsequent decrease in stormwater runoff will offset the increase in impervious cover and stormwater runoff associated with the on-going actions on the base by 1.25 cfs. Cumulative impacts to water resources at the marina complex as a result of the proposed action and other foreseeable actions will not be expected.

Hazardous Materials and Hazardous Waste. Hazardous materials will be consumed and waste generated during the demolition and construction project. Lead-based paint and asbestos will be handled according to established plans and regulatory guidance. Project planners will coordinate all site disturbance activities at Site SS015 and AOC04 with Installation Restoration Program (IRP) project personnel at the preliminary planning stages. Significant cumulative impacts to hazardous materials, hazardous waste, asbestos, and lead-based paint will not be expected from the proposed or other foreseeable actions.

Biological Resources. The proposed demolition and construction activities will occur within previously disturbed portions of the base. Most of the proposed project areas at the marina complex will also occur in areas that have been previously disturbed or do not possess unique habitat. Two state-listed threatened species have previously been identified on Laughlin AFB. The habitats for these two species, Texas indigo snake and Texas horned lizard, are not conducive to developed areas similar to those of the individual project sites. Therefore, there will be no impact to these species as a result of the proposed action. None of the proposed projects sites are located in the 100-year floodplain or wetland areas on the base. All of the facilities at the marina complex with the exception of the dock system and boat ramp will be above the maximum flood elevation for Lake Amistad. There will be no cumulative impacts to biological resources as a result of the proposed action and on-going actions.

Utilities and Infrastructure. There will be no change in the number of personnel working or living on base. Therefore, there will be no measurable change in the amount of electricity, natural gas, or potable water used on the installation or volume of sanitary waste generated. Although recreational use of the marina complex is expected to increase, the managers have been operating at or beyond capacity. Facilities were designed to accommodate this growth; therefore, the increase in electricity, natural gas, and potable water use is expected to be minor. The existing evapotranspiration field will be increased to accommodate the increase in sanitary waste generated by the proposed action. The amount of stormwater runoff on the base will decrease. However, stormwater runoff will increase at the marina complex. This increase will flow naturally into Lake Amistad and will not significantly impact the design capacity of the lake. The construction and demolition activities will generate an increase in the amount of solid waste generated at both the base and marina complex. However, the expected amount will not significantly impact the life expectancy of that landfill. The construction and demolition activities will create a short-term impact to transportation near the individual project sites. However, this minor impact will be temporary in duration. There will be no significant cumulative impact to utilities and infrastructure as a result of the proposed and other foreseeable actions.

Socioeconomics. There will be no measurable impact on the local or regional economy as a result of the proposed action. There will be no impact on the number of individuals living in the region, economy, or housing market. The amount of money generated by the construction and demolition activities is consistent with recent efforts on Laughlin AFB. Therefore, there will not be any significant impacts on socioeconomics as a result of the proposed action. There will be no cumulative impact to socioeconomics resulting from the implementation of the proposed action and other foreseeable actions.

ENVIRONMENTAL JUSTICE: Activities associates with the proposed action will not impose adverse environmental effects on adjacent populations. Therefore, no disproportionately high and adverse effects will occur to minority populations or low-income populations.

ALTERNATIVE ACTION: The alternative action is similar to the proposed action. All projects at Laughlin AFB will be implemented as described for the proposed action. Projects at the marina complex will be sited at alternate locations; however, impacts will be the same as described for the proposed action with the exception of water resources and solid waste. Impervious cover for Laughlin Southwinds Marina Complex would increase under the alternative action. This increase equates to an increase in stormwater runoff for the complex. As with the proposed action the stormwater would be within the design capacity of the lake. The amount of solid waste generated by this alternative would be only seven tons more than the proposed action or less than 11 percent of the annual waste stream of the regional landfill, and would not significantly impact the life expectancy of that landfill.

NO-ACTION ALTERNATIVE: The conditions and characteristics anticipated under the no-action alternative for each of the biophysical resources will continue at levels equal to those occurring under the existing condition. No significant environmental impacts are experienced or generated by the existing condition. Likewise, no environmental regulations are violated by the existing operating procedures. Therefore, no significant impacts would be expected for the no-action alternative.

PUBLIC REVIEW AND INTERAGENCY COORDINATION: Pursuant to 32 CFR 989.14, the Draft EA was made available to the public from (April 2, 2006 to May 2, 2006). All activities in the proposed action have been coordinated within the appropriate federal, state and local agencies and have been found to comply with the criteria or standards of environmental quality.

DECISION: Based on my review of the facts and analysis contained in this attached environmental assessment which is incorporated by reference, I conclude the implementation of the proposed action will not produce significant impacts, either by itself, or considering cumulative impacts. Accordingly, the requirements of the National Environmental Policy Act, regulations promulgated by the President's Council on Environmental Quality, and Air Force Instruction 32-7061 are fulfilled and an environmental impact statement is not required.



EDWARD M. MINAHAN, Colonel, USAF
Commander
Laughlin Air Force Base, Texas



Date

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FINAL



ENVIRONMENTAL ASSESSMENT

MULTIPLE PROJECTS AT
LAUGHLIN AIR FORCE BASE, TEXAS

United States Air Force
Air Education and Training Command
Laughlin Air Force Base, Texas

May 2006

FINAL

ACRONYMS AND ABBREVIATIONS

µg/m ³	micrograms per cubic meter	NPDES	National Pollutant Discharge Elimination System
°F	Fahrenheit	O ₃	ozone
47 FTW	47 th Flying Training Wing	OSHA	Occupational Safety and Health Administration
96 FTS	96 th Flying Training Squadron	PM ₁₀	Particulate matter equal to or less than 10 microns in diameter
ACM	asbestos-containing material	ppm	parts per million
AETC	Air Education and Training Command	psig	pounds per square inch
AFB	Air Force Base	RCRA	Resource Conservation and Recovery Act
AFI	Air Force Instruction	ROI	Region of Influence
AOC	Area of Concern	SAC	Strategic Air Command
AQCR	Air Quality Control Region	SFHA	special flood hazard area
CAA	Clean Air Act	SIP	State Implementation Plan
CEQ	Council on Environmental Quality	SO ₂	sulfur dioxide
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	SO _x	sulfur oxide
CFR	Code of Federal Regulations	SUPT	Specialized Undergraduate Pilot Training
cfs	cubic feet per second	SWPPP	Stormwater Pollution Prevention Plan
CMU	concrete masonry unit	TAC	Texas Administrative Code
CNG	compressed natural gas	TCEQ	Texas Commission on Environmental Quality
CO	carbon monoxide	TPDES	Texas Pollutant Discharge Elimination System
CWA	Clean Water Act	tpy	tons per year
CY	calendar year	US	United States
dB	Decibel	USACE	US Army Corps of Engineers
dBA	A-weighted sound level, measured in decibels	USAF	United States Air Force
DNL	day-night average sound level	USC	United States Code
DoD	Department of Defense	USEPA	United States Environmental Protection Agency
DoDD	DoD Directives	USFWS	United States Fish and Wildlife Service
DRMO	Defense Reutilization and Marketing Office	VAQ	Visiting Accompanied Officers' Quarters
EA	Environmental Assessment	VOC	volatile organic compound
EIS	Environmental Impact Statement	VOQ	Visiting Officers' Quarters
EO	Executive Order		
FONSI	Finding of No Significant Impact		
gpm	gallons per minute		
IRP	Installation Restoration Program		
kWH	Kilowatt-hours		
LBP	lead-based paint		
L _{eq}	equivalent sound level		
L _p	sound pressure level		
msl	mean sea level		
MWR	Morale, Welfare and Recreation		
NAAQS	National Ambient Air Quality Standards		
NEPA	National Environmental Policy Act		
NO ₂	nitrogen dioxide		
NOI	Notice of Intent		
NOT	Notice of Termination		
NO _x	nitrogen oxide		

FINAL

Environmental Assessment

**Multiple Projects at
Laughlin Air Force Base, Texas**

**Department of the Air Force
47th Flying Training Wing
Laughlin Air Force Base, Texas**

May 2006



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COVER SHEET

Responsible Agency: United States Air Force, Laughlin Air Force Base (AFB), Texas.

Proposed Action: Construction of Multiple Projects, Laughlin AFB, Val Verde County, Texas.

Point of Contact: Ms. Jodi Ney, 47 CES/CEV, 251 4th Street, Laughlin AFB, Texas, 78843-5143, 830.298.5094.

Report Designation: Final Environmental Assessment (EA)

Abstract: The Air Force must maintain the highest level of quality education and training for its force structure. Currently, certain facilities at Laughlin AFB are undersized or inadequately configured to maintain existing mission requirements and support functions. Replacement and/or upgrade of these facilities are needed to enable the installation to accomplish its mission and meet the personnel support requirements. The Air Force is proposing to construct three new facilities and modify three existing facilities to improve the ability of Laughlin AFB to support the Specialized Undergraduate Pilot Training (SUPT) Program conducted at the base. As part of this effort, seven old, deteriorated buildings on the installation would be demolished in association with the new construction activities. In an effort to upgrade and replace inadequate facilities to meet the current demand, the Air Force is proposing to construct various facilities as part of the modification to the existing Laughlin Southwinds Marina Complex. There would be some demolition activities associated with the proposed efforts at the marina complex. An alternative siting scenario was developed for the proposed facilities at the marina complex. Conversely, the Air Force could select to take no action (no-action alternative). The following biophysical resources were identified for study at Laughlin AFB: noise, air quality, earth resources, water resources, hazardous materials and hazardous waste, biological resources, utilities and infrastructure, and socioeconomics.

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CHAPTER 1

PURPOSE OF AND NEED FOR ACTION

The Commander, 47th Flying Training Wing (47 FTW), proposes to construct multiple projects at Laughlin Air Force Base (AFB), Texas. This Environmental Assessment (EA) consists of seven chapters covering the purpose and need for the proposed action, a detailed description of the proposed action and alternatives, a discussion of baseline environmental conditions, the environmental analysis, a list of preparers, the agencies and individuals contacted, and the documents used for this EA. This chapter of the document presents the purpose of and need for the action, a description of the location, a description of the scope of the environmental review, an overview of environmental requirements, an introduction to the organization of this document, and a summary of public involvement.

1.1 PURPOSE OF AND NEED FOR ACTION

The Commander of 47 FTW is proposing to construct three new facilities and modify three existing facilities to improve the ability of Laughlin AFB to support the Specialized Undergraduate Pilot Training (SUPT) Program conducted at the base. As part of this effort, seven old, deteriorated buildings on the installation would be demolished in association with the new construction activities. Additionally, the United States Air Force (USAF) is proposing to construct various facilities as part of the modification to the existing Laughlin Southwinds Marina Complex. There would be some demolition activities associated with the proposed efforts at the marina complex.

The USAF must maintain the highest level of quality education and training for its force structure. The Air Education and Training Command (AETC) is the USAF's major command responsible for training and educating its personnel. Laughlin AFB is unique in that it is one of only three bases in the Air Force that trains student pilots in the SUPT program. Following completion, most SUPT graduates are assigned to other bases for flying assignments in other aircraft; however, some graduates remain at Laughlin AFB for duty as SUPT instructors.

Currently, certain facilities are undersized or inadequately configured to maintain existing mission requirements and support functions. Replacement and/or upgrade of these facilities are needed to enable Laughlin AFB to accomplish its mission and meet the personnel support requirements. Following is a brief description of deficient facilities at the base.

Aircraft Maintenance Operations Center (MXDP053001). The existing aircraft maintenance supervisory functions are spread among four facilities. Two of the existing facilities would remain, but Buildings 204 and 215 would be demolished and replaced with a new facility. The two facilities targeted for demolition are old, in poor physical

condition, and inadequate in size to meet current and future mission requirements. The proposed facility would be large enough to meet the current spatial demands of the organization, as well as the overall growth requirements of the Undergraduate Pilot Training unit.

Squadron Operations Facility for 96th Flying Training Squadron (96 FTS) Reserves (MXDP061008). The 96 FTS is currently utilizing space in the Operations Training Complex, which is also occupied by five active duty squadrons. The active duty squadrons require the majority of the space. Space for the 96 FTS is extremely limited, and each of the four flights is restricted to less than 150 square feet for as many as 15 individual pilots. This limited space does not allow the 96 FTS leadership to adequately conduct counseling and reserve flight administrative requirements. The 96 FTS commander also has limited space to conduct squadron business. Additionally, there is not enough space to store the required flight publications, extra flight gear, and personal items associated with the personnel who report for duty. In accordance with Air Force Handbook 32-1084, a typical flying training squadron requires approximately 22,000 square feet of space. The 96 FTS currently operates with 84 personnel in less than 3,000 square feet of space. The current situation adversely impacts the efficient management of the 96 FTS, undermines the overall mission of the organization, as well as deteriorates the morale of the pilots.

Consolidated Student Activity Education Center (MXDP073000). The education and support functions at Laughlin AFB are spread throughout the base in different buildings. These support functions include the Base Library, Book Store, and Education Center. The *Base Library* is located in a fifty-one year old facility that is not located in an area easily accessed by students enrolled in the pilot training program or by other users. The facility is in need of a complete renovation to bring it up to modern standards. The facility is inadequate in size and does not have any space for group study rooms, to display all of the children's books on hand, to hold group-reading sessions, or to set up computers for the children. The *Book Store*, another component of the education and support functions, is located inside the officers training complex and takes up space that could be used more efficiently for student pilot training. The limited space the bookstore occupies limits the materials and equipment available to the student pilots. The *Education Center* is not centrally located and provides a few classrooms that are used for both professional military education training and high-level college classes. There are no spaces available to develop group study rooms for use by other students in training. Over the years, the functions of the education services flight has expanded from merely supporting military personnel to supporting the needs of civilians, military personnel, and their family members. This project would allow for the consolidation of these functions in a manner that would encourage participation and use of the education and support services provided by the Center. With the limited off-base activities available at this remote location, higher education training for professional advancement is of paramount importance to customers. Additionally, this is a morale and quality of life initiative.

Golf Course Maintenance Facility (MXDP985000). The existing Golf Course Maintenance Facility (Building 595) is twenty years old and requires extensive repair and upgrades to meet the current needs of the organization. Additionally, the current demand for maintenance space exceeds the limited 1,440 square feet available in the existing building.

Automated Car Wash (MXDP055001). Currently, Laughlin AFB has a three-bay manual car wash facility. The nearest automated car wash facility is 12 miles away in Del Rio, Texas. Because of the physical locations of Laughlin AFB and Del Rio, the lack of facilities on base results in long lines at the automated car wash in Del Rio on the weekends for base personnel and a loss of potential revenue for Morale Welfare and Recreation (MWR). Construction of an on-base facility would be a Quality of Life initiative for base personnel and generate revenue for MWR.

Alter Building 7 Contracting (MXDP061002). Building 7 lacks adequate conference room spaces for negotiations with multiple contractors. Restrooms do not provide sufficient space and privacy for the number of people in the building. The building is very crowded in the existing offices due to an increased number of personnel. The 47th Contracting Squadron would continue to be limited in its ability to meet the contracting needs of the installation if the upgrades to the facility are not accomplished. Additionally, multiple meetings with contractors and vendors would not be possible and the effectiveness of the overall mission would be compromised.

Additional Demolition Projects. In addition to the demolition projects discussed as part of the previously discussed projects, Laughlin AFB is proposing to demolish three buildings as part of this effort (Buildings 31600, 255, and 256). To meet the operational needs of each of its tenant organizations, the 47 FTW is required to develop and implement a comprehensive master plan that addresses the growth of the installation. As part of the planning process, these facilities were assessed and determined to be of poor physical condition and unable to support current and future growth of the installation.

Various Facilities at Marina (MXDP985002). The existing marina complex does not have the resources required to meet the needs of customers. Currently there are no camping sites, tent pads, covered boat storage, or covered RV sites. Marina guests using the recreational facility have exceeded the capacity of the building during peak seasons. The existing maintenance building is inadequate in size to the point of not accommodating boat repair inside the facility. Additionally, the existing evapotranspiration field is not sized for the increase in sewer service required by the higher demands. The existing dock system consists of deteriorating plastic docks reinforced with three-inch-by-three-inch metal beams. During past storm events, winds have driven boats through the docks, ripping the docks apart and making it impossible to repair the overall system. As a result of the continual storm damage and heavy boat traffic, the entire docking system has been weakened to the point where it is a safety concern for marina operators. The proposed project is designed to meet the customer demands that would equate to better morale for personnel using the facilities. Thus, this is a morale and quality of life initiative.

1.2 LOCATION

Laughlin AFB is located in Val Verde County, approximately 6 miles east of Del Rio, Texas. Laughlin AFB personnel also use a recreational area at Lake Amistad. Lake Amistad is located approximately 13 miles northwest of Del Rio. Figure 1-1 shows the location of Laughlin AFB, Del Rio, and Lake Amistad.

1.3 SCOPE OF THE ENVIRONMENTAL REVIEW

The *National Environmental Policy Act* (NEPA) of 1969, as amended, requires federal agencies to consider environmental consequences in the decision-making process. The President's Council on Environmental Quality (CEQ) issued regulations to implement NEPA that include provisions for both the content and procedural aspects of the required EA as found in Title 40 Code of Federal Regulations (CFR) Sections 1500-1508. The Air Force Environmental Impact Analysis Process is accomplished through adherence to the procedures set forth in Air Force Instruction 32-7061, *The Environmental Impact Analysis Process*, 12 March 2003, and 32 CFR 989, *Environmental Impact Analysis Process*. This process establishes both the administrative process and substantive scope of the environmental impact evaluation designed to ensure that deciding authorities have a proper understanding of the potential environmental consequences of a contemplated course of action. The CEQ regulations require that an EA:

- Provide sufficient evidence and analysis for determining whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact.
- Facilitate the preparation of an EIS, when required.

An EA will assess the construction and demolition of the multiple projects (including associated demolition projects) at Laughlin AFB. The EA will identify, describe, and evaluate the potential environmental impacts that may result from implementation of the proposed action or alternative actions as well as possible cumulative impacts from other reasonably foreseeable actions. As appropriate, the affected environment and environmental consequences of the proposed action, alternative actions, and no-action alternative may be described in terms of site-specific descriptions or regional overview. Finally, the EA will identify mitigation measures or best management practices to prevent or minimize environmental impacts, if required.

The following topics were identified for study at Laughlin AFB: noise, air quality, earth resources, water resources, infrastructure and utilities, hazardous materials and wastes, biological resources, and socioeconomic resources. There is no potential for cultural resources or archeological sites to be impacted by the proposed action and alternatives. Therefore, an assessment of these resources is not included in this analysis. An assessment of safety and health impacts is not included in this document; all contractors would be responsible for compliance with applicable Occupational Safety and Health Act (OSHA) regulations concerning occupational hazards and specifying appropriate protective measures for all employees. In addition, aircraft operations and maintenance activities, which would be subject to OSHA regulations, are not components of the proposed action.



Figure 1-1 Regional Location Map

On February 11, 1994, the president issued Executive Order (EO) 12898, *Federal Action to Address Environmental Justice in Minority Populations and Low-Income Populations*. In the EO, the president instructed each federal agency to make "achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations." The Federal Interagency Working Group on Environmental Justice defines the word adverse as "having a deleterious effect on human health or the environment that is significant, unacceptable, or above generally accepted norms." Based on analysis of impacts in this EA, a determination on significance of impacts will be made. If impacts would be significant, the Air Force would either prepare an EIS or not implement the proposal. Accordingly, Environmental Justice will be addressed either in a FONSI (after determination on significance of impacts) or in a Record of Decision based on an EIS.

Other actions or potential actions that may be concurrent with the proposed action could contribute to cumulative impacts. The environmental impacts of these other actions are addressed in this EA only in the context of potential cumulative impacts if any. A cumulative impact, as defined by the CEQ (40 CFR 1508.7), is the "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of which agency (federal or non-federal) or person undertakes such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time."

1.4 APPLICABLE REGULATORY REQUIREMENTS

Regulatory requirements potentially applicable to the proposed action and alternatives are presented in Table 1-1.

1.5 INTRODUCTION TO THE ORGANIZATION OF THE DOCUMENT

This EA is organized into seven chapters. Chapter 1 contains a statement of the purpose of and need for action, the location of the proposed action, a summary of the scope of the environmental review, identification of applicable regulatory requirements, and a description of the organization of the EA. Chapter 2 contains a brief introduction; describes the history of the formation of alternatives; describes the alternatives eliminated from further consideration; provides a detailed description of the proposed action, no-action, and other action alternatives; summarizes other actions announced for Laughlin AFB; and provides a comparison matrix of environmental effects for all alternatives. Chapter 3 contains a general description of the biophysical resources that potentially could be affected by the proposed action or alternatives. Chapter 4 is an analysis of the environmental consequences. Chapter 5 lists preparers of this document. Chapter 6 lists persons and agencies consulted in the preparation of this EA. Chapter 7 is a list of source documents relevant to the preparation of this EA.

Table 1-1 Potentially Required Federal Permit, License, or Entitlement

Federal Permit, License, or Entitlement	Typical Activity, Facility, or Category of Persons Required to Obtain the Federal Permit, License, or Entitlement	Authority	Regulatory Agency
Title V permit under the Clean Air Act (CAA)	<p>Sources subject to the Title V permit program include:</p> <p>Any major source:</p> <ul style="list-style-type: none"> (1) A stationary source that emits or has the potential to emit 100 tons per year (tpy) of any pollutant (major source threshold can be lower in nonattainment areas), (2) A major source of air toxics regulated under Section 112 of Title III (sources that emit or have the potential to emit 10 tpy or more of a hazardous air pollutant or 25 tpy or more of any combination of hazardous air pollutants). <p>Any “affected source” as defined in Title IV (acid rain) of the CAA.</p> <p>Any source subject to New Source Performance Standards under Section 111 of the CAA.</p> <p>Sources required to have new source or modification permits under Parts C [Prevention of Significant Deterioration (attainment areas)] or D [New Source Review (nonattainment areas)] of Title I of the CAA.</p> <p>Any source subject to standards, limitations, or other requirements under Section 112 of the CAA.</p> <p>Other sources designated by U.S. Environmental Protection Agency (USEPA) in the regulations.</p>	Title V of CAA, as amended by the 1990 CAA Amendments	USEPA; Texas Commission on Environment Quality (TCEQ)
National Pollutant Discharge Elimination System permit	Discharge of pollutant from any point source into navigable waters of the US.	§ 402 of Clean Water Act (CWA); 33 United States Code (USC), § 1342	USEPA; TCEQ

Table 1-1, Continued

Federal Permit, License, or Entitlement	Typical Activity, Facility, or Category of Persons Required to Obtain the Federal Permit, License, or Entitlement	Authority	Regulatory Agency
Endangered Species Act § 7 consultation	Taking endangered or threatened wildlife species; engaging in certain commercial trade of endangered or threatened plants or removing such plants on property subject to federal jurisdiction.	§ 7 of Endangered Species Act, 16 USC § 1539; 50 Code of Federal Regulations 17 Subparts C, D, F, and G	US Department of the Interior - Fish and Wildlife Service (USFWS), Texas Parks and Wildlife
Clean Water Act § 404 permit	Actions to reduce the risk of flood loss to minimize the impact of floods on human safety, health, and welfare; to restore and preserve the natural and beneficial values served by floodplains; actions to minimize destruction, loss, or degradation of wetlands; and to preserve and enhance the natural and beneficial values of wetlands.	Executive Orders 11988 and 11990, § 404 of CWA, 33 USC § 1251	US Army Corps of Engineers, USFWS

Appendix A contains detailed air pollutant emission calculations. Appendix B contains documentation relevant to public involvement.

1.6 PUBLIC INVOLVEMENT

On April 2, 2006, the Laughlin AFB Environmental Flight published a Notice of Availability in the *Del Rio News Herald* announcing an opportunity to comment on this EA. Concurrently, copies of the EA were sent to appropriate government organizations. Laughlin AFB received two (2) responses during the 30-day public comment period that concluded May 2, 2006.

The International Boundary and Water Commission offered three comments on the document and all were incorporated as requested. The Texas Water Development Board commented they do not have resources available to provide the information requested.

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CHAPTER 2

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

2.1 INTRODUCTION

This chapter is composed of eight sections: an introduction, a brief history of the formulation of alternatives, identification of alternatives eliminated from further consideration, a detailed description of the proposed action, a description of the no-action alternative, a detailed description of other action alternatives, and a comparison matrix of environmental effects of all alternatives.

2.2 HISTORY OF THE FORMULATION OF ALTERNATIVES

2.2.1 Alternative Selection Criteria

The factors considered when developing the alternatives were based on the requirements of Laughlin AFB associated with implementing each of the individual construction projects.

Aircraft Maintenance Operations Center. The alternative selection criteria for the aircraft maintenance operations center were related primarily to program efficiency and meeting mission requirements. Additionally, several siting criteria were considered during the formulation of alternatives:

- proximity to the flightline,
- proximity to other aircraft maintenance activities, and
- proximity to support functions.

Squadron Operations Facility for 96 FTS Reserves. The alternative selection criteria for the squadron operations facility for the 96 FTS Reserves were very similar to that of the aircraft maintenance operations center in that operational efficiency and mission requirements were the two primary concerns in the development of alternatives. Again, siting the proposed facility was based on:

- proximity to the flightline,
- proximity to other aircraft maintenance activities, and
- proximity to support functions.

Consolidated Student Activity Education Center. The consolidation of the main functions of the education center was the primary alternative selection criterion used to

develop alternatives for this effort. The second criterion was the siting of the complex in a location that would:

- encourage the greatest amount of facility use by training personnel, base residents, and others;
- support formal Air Force training programs and initiatives; and
- promote participation in the other programs offered by the center.

Golf Course Maintenance Facility. Developing the alternatives for the golf course maintenance facility was based on the needs of the facility and the cost effectiveness of meeting those needs. Space was the primary criteria for the development of alternatives, as well as the efficiency of the operation itself. The following functions were used in the development of alternatives as they relate to the spatial requirements:

- equipment storage and maintenance areas,
- chemical storage area,
- wash rack with oil/water separator, and
- office areas, break room, and restroom facilities.

Automated Car Wash. The selection criteria for the automated car wash were related primarily to location of an automated system on base. Additionally, there were other criteria considered during the formulation of alternatives:

- proximity to existing car wash facilities, and
- cost effectiveness.

Alter Building 7 Contracting. Developing the alternatives for the expansion or alteration of Building 7 was based on the needs of the facility and the most cost effective way of meeting those needs. Space for conference rooms and offices was the primary criterion for the development of alternatives. Other criteria included:

- utilizing the existing facility, and
- minimize disruption of mission.

Additional Demolition Projects. As part of the planning process, facilities were assessed to determine their physical condition and ability to support current and future growth of the installation. Several criteria were evaluated prior to a facility being identified for demolition. These factors were:

- facilities were identified to be of such poor physical condition that three years of maintenance exceeds 70 percent of the worth of the facility;

- location, size, and/or configuration of building limits the future use of the facility; and/or
- presence of hazardous substances (i.e., asbestos, lead-based paint [LBP], etc.) in the facility.

Various Facilities at Marina. Developing the alternatives for various facilities at the marina was based on the needs of the facility as defined by the recreational customers and the location restrictions associated with the various elements of the project. Additionally, the criteria included the following:

- providing the greatest number of services economically feasible to provide the greatest amount of revenue (cost effectiveness),
- operational efficiency,
- sustainability and maintainability of the improvements/facilities, and
- aesthetics and visual impacts on the lake.

Once these factors were met by a facility, no other alternatives would meet the requirements.

2.2.2 Development of Alternatives

Based on the selection criteria presented in Section 2.2.1, the following alternatives were developed.

Modify and renovate existing facilities.

Demolish old and construct new facilities.

2.3 IDENTIFICATION OF ALTERNATIVES ELIMINATED FROM CONSIDERATION

Given the number of individual projects associated with this analysis, several alternatives were identified and eliminated from further consideration. The following sections provide specific discussions as they relate to each project.

Aircraft Maintenance Operations Center. The aircraft maintenance operations are spread out between four separate facilities. Modification of existing facilities to accommodate the needs of the operations center was eliminated from further consideration because it would not meet the efficiency, operational, and cost effective requirements.

Squadron Operations Facility for 96 FTS Reserves. No alternatives were identified for this action other than the proposed action and the no-action alternative.

Consolidated Student Activity Education Center. The modification of existing education facilities across the base would not consolidate the functions into one central location. This alternative was, therefore, eliminated from further consideration.

Golf Course Maintenance Facility. The existing maintenance facility has deteriorated beyond physical repair and does not meet the necessary spatial requirements. As a result, a modification to the current golf course maintenance facility has been eliminated from further consideration.

Automated Car Wash. No alternatives were identified for this action other than the proposed action and the no-action alternative.

Alter Building 7 Contracting. No alternatives were identified for this action other than the proposed action and the no-action alternative.

Additional Demolition Projects. No alternatives were identified for this action other than the proposed action and the no-action alternative.

Various Facilities at Marina. Some of the facilities associated with this effort already exist at the marina (i.e., evapotranspiration fields, laundry and shower facilities, and maintenance facility). Modification of these existing facilities would not meet the demand requirements and, therefore, were eliminated from further consideration.

2.4 DETAILED DESCRIPTION OF THE PROPOSED ACTION

The 47 FTW proposes to construct multiple projects on Laughlin AFB. The locations of these individual projects are depicted on Figure 2-1. The specifics are discussed in the following sections.

2.4.1 Aircraft Maintenance Operations Center

The aircraft maintenance operations are spread out between four separate facilities. As part of the proposed action, the Air Force would construct a 21,520-square foot facility and demolish two of the four existing facilities. Building 204 (9,431 square feet) and Building 215, an administrative building, (1,743 square feet) would be demolished as part of this effort. Building 204 currently consists of classrooms and offices for the Quality Assurance, Functional Check Flying Pilots, and Fuel Representatives organizations. The personnel located in these facilities (68 and 90, respectively) would be relocated to the new administrative facility. The new facility would be a two-story masonry structure on a concrete foundation with a standing seam metal roof. The new facility would house all of the same administrative and oversight functions and operations as the demolished facilities. The proposed facility would be located within the vicinity of the flightline, near Building 204 as depicted on Figure 2-1.

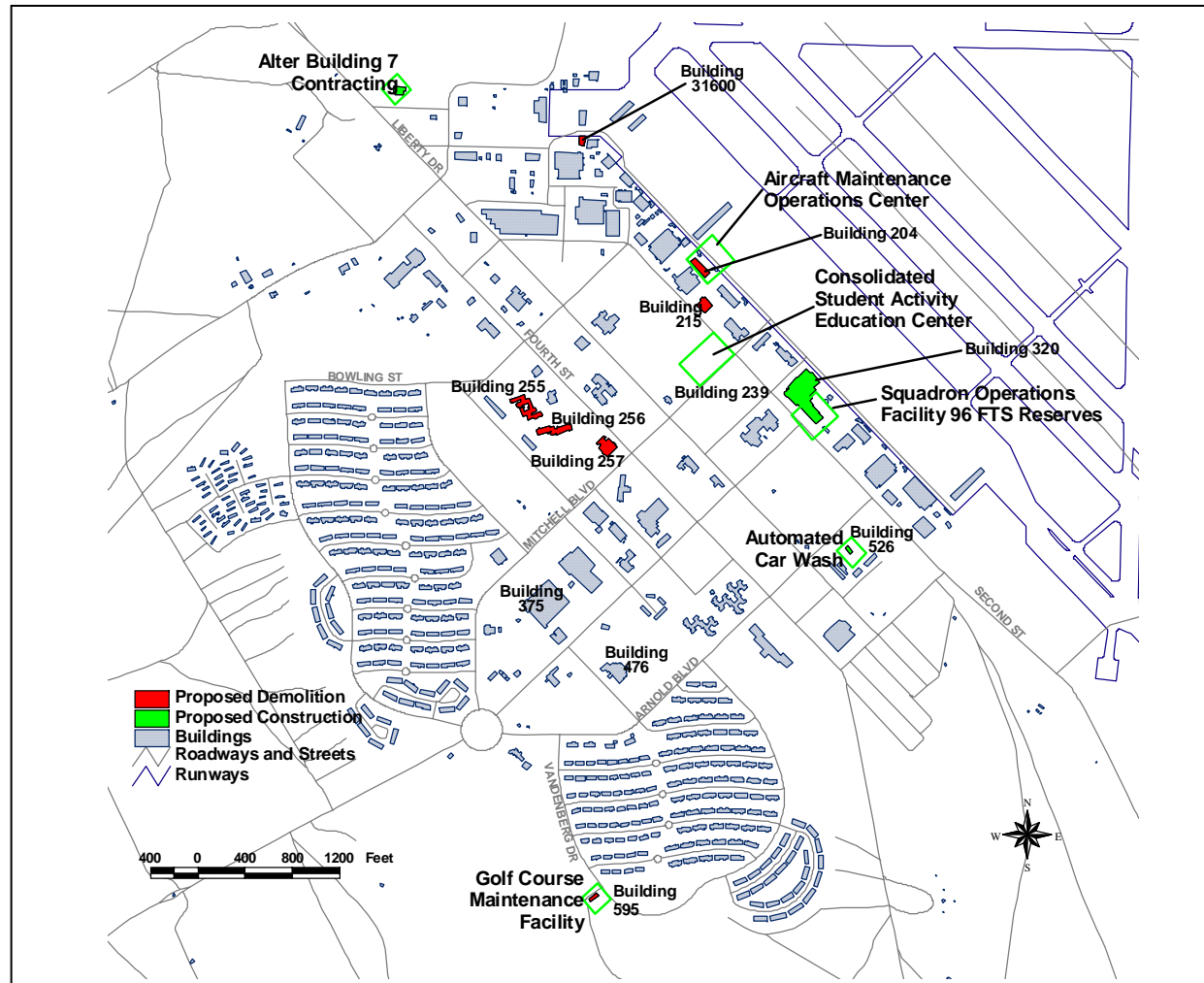


Figure 2-1 Locations of Proposed Action, Laughlin Air Force Base, Texas

2.4.2 Squadron Operations Facility for 96 FTS Reserves

The 96 FTS Reserves share space with four active duty squadrons in an area of approximately 3,000 feet. Under the proposed action, the Air Force would construct a 3,650-square foot addition to the southeast sides of Building 320 to support the unit's training mission. The new space would be used by 84 reservists and would include work areas, offices, and sufficient storage. There would be no demolition activities, and all of the functions currently carried out by the 96 FTS would continue under the proposed action. The modified facility is depicted on Figure 2-1.

2.4.3 Consolidated Student Activity Education Center

The education and support functions at Laughlin AFB are spread throughout the base in different buildings. Under the proposed action the Base Library, Book Store, and Education Center would be consolidated into three new facilities totaling approximately 17,840 square feet. Each of the new facilities in the consolidated education complex would consist of a masonry building on a concrete foundation with a standing seam metal roof. The new facilities would provide space for:

- both professional military education training and college-level classrooms,
- group study rooms,
- a retail area for training and education materials and equipment,
- children's computers,
- children group reading sessions, and
- children's library section.

As part of the proposed action, the Air Force would demolish Building 257 (13,843 square feet), which houses the Post Office, Base Library, and Base Services Administration. The Post Office and Base Services Administration would also be relocated to the new complex. The proposed new facility would be located within the vicinity of Building 239 along Mitchell Boulevard and is depicted on Figure 2-1.

2.4.4 Golf Course Maintenance Facility

The existing golf course maintenance facility (Building 595) has deteriorated beyond physical repair and does not meet the necessary spatial requirements. Under the proposed action, the Air Force would construct a new 5,000-square foot pre-engineered facility on a concrete foundation. The facility would consist of a metal building with two roll-up overhead doors and a metal roof. The facility would have space enough to accommodate maintenance and work areas, an office, restrooms, and some equipment storage. In addition to the primary maintenance facility, the Air Force would install two pre-cast concrete buildings, totaling 500 square feet, for the storage of chemicals. The facilities

would meet all federal and state regulations for the storage and management of hazardous materials. Additionally, there would be a fence and a four-inch curb around the chemical storage facility.

As part of the proposed action, Building 595 (approximately 1,400 square feet) would be demolished. Any materials considered hazardous would be disposed of according to Resource Conservation and Recovery Act (RCRA) regulations and the Laughlin Hazardous Waste Management Plan prior to any demolition activities. The proposed new facilities would be located within the vicinity of the existing golf course maintenance facility, near Building 595, and are depicted on Figure 2-1.

2.4.5 Automated Car Wash

The Air Force is proposing to construct an automatic car wash adjacent to the existing car wash facility (Building 526). The proposed facility would be located approximately 20 feet southeast of Building 526 and would be approximately 1,500 square feet. The new facility would be an automated car wash system constructed in a manner that would be architecturally consistent with the existing facility, with masonry walls, flat metal roof, and a concrete foundation. Additionally, there would be an underground recycled-water tank system as part of this effort. The proposed automated car wash expansion would increase the amount of asphalt by 3,250 square feet. The proposed facility is depicted on Figure 2-1.

2.4.6 Alter Building 7 Contracting

The Air Force is proposing to construct an addition to the north side of Building 7 to accommodate new conference rooms, offices, work areas, and restrooms for base contracting. The new addition would be constructed in a manner that would be architecturally consistent with the existing facility, with masonry walls, standing seam metal roof, and a concrete foundation. The proposed expansion would increase the facility by approximately 1,000 square feet. The proposed expansion of Building 7 is depicted on Figure 2-1.

2.4.7 Additional Demolition Projects

In addition to the buildings associated with the projects previously discussed, the Air Force is proposing to demolish various buildings on Laughlin AFB. These buildings include Building 31600 (a hazardous material shed), Building 204 (an administrative building), and Buildings 255 and 256 (dormitories). Table 2-1 identifies the list of all the facilities proposed for demolition in this EA and the area (in square feet) of each. All supplies and materials would be salvaged and taken to a centralized facility and consolidated for storage. Any materials considered hazardous would be disposed of according to RCRA regulations and the Laughlin AFB Hazardous Waste Management Plan prior to demolition activities. Following demolition, the site would be landscaped

according to the Laughlin AFB Landscaping Plan. The buildings proposed for demolition are depicted on Figure 2-1.

Table 2-1 All Buildings Proposed for Demolition on Laughlin AFB

Building	Project	Description/Use	Area to be Demolished (Square Feet)
Building 204	Aircraft Maintenance Operations	classrooms and offices	9,431
Building 215	Aircraft Maintenance Operations	administrative	1,743
Building 257	Consolidated Student Activity Education Center	post office, library, administrative	13,843
Building 595	Golf Course Maintenance Facility	maintenance facility	1,400
Building 31600	Additional Demolition Projects	hazardous material shed	2,336
Building 255	Additional Demolition Projects	dormitory	41,634
Building 256	Additional Demolition Projects	dormitory	30,562
TOTAL			100,949

2.4.9 Various Facilities at Marina

Some of the facilities associated with this effort already exist at the marina (i.e., evapotranspiration fields, dry boat storage area, recreational vehicle sites, cabins, and maintenance facility). Under the proposed action, some of the existing facilities would be modified, demolished, and/or new facilities would be constructed. Table 2-3 identifies the list of facilities to be constructed and/or modified and the square footage of each is provided, where appropriate. Two buildings [Buildings 4002 (maintenance building) and 4000 (Marine Store/Rental Office)] would be demolished as part of the proposed action. The four existing cabins at the marina complex would be removed from the site and ten new cabins would be constructed, four at cabin site #1 and the remaining six cabins at cabin site #2 as shown in Figure 2-2.

The existing dry boat storage area would be upgraded to include a covered storage facility, and a new maintenance building would be constructed across the access road from the existing recreational vehicle sites. The new facility would be able to accommodate indoor boat repair. Eight tent pad sites and a new laundry/showers/restrooms facility would be constructed as depicted on Figure 2-2. The area would also house six gazebos and a small parking area. As part of the proposed action covers would be constructed over the existing recreational vehicle areas (15 vehicle sites), and an additional area for recreational vehicles and its associated roadway would be added to the marina complex. A new recreational facility would be constructed behind the four existing cabins, where the existing maintenance area is located.

Table 2-3 Various Proposed Actions at the Laughlin Southwinds Marina Complex

Description	New Construction (Square Feet)	Demolition (Square Feet)
Maintenance Building/Boat Repair Facility	4,000	1,690
Recreational Center	4,000	1,200
Covered Boat Storage for 30 Boats	9,000	---
Cabin Sites (10 each)	2,040	816
Concrete Tent Pads (8 each) with 6 Gazebos	1,485	---
Laundry/Shower/Restrooms Facility	800	---
Additional Roadways and Parking for Cabins and Tent Sites	36,400	---
Covers for the Existing 15 Recreation Vehicle Sites	---	---
Recreational Vehicle Sites (10 each) and Roadway	24,000	---
Marina Parking Expansion	150,000	---
Relocation of Petroleum Gas Tank and Secondary Containment Pad	400	---
Reconstruction of Marina Dock System	---	---
Reconstruction of Breakwater	---	---
Evapotranspiration Fields	60,000	---
Pump Stations	200	---
TOTAL	292,325	3,706

The marina parking area would also be expanded to accommodate the increase in customer activities and demand. Additionally, the existing 2,500-gallon aboveground gasoline tank that services both the public and maintenance activities of the complex currently located at the south end of the parking area would be replaced and relocated as depicted on Figure 2-2. The new 3,000-gallon aboveground tank would be constructed using a convault system (concrete vault and concrete construction) with 400-foot secondary containment pad.

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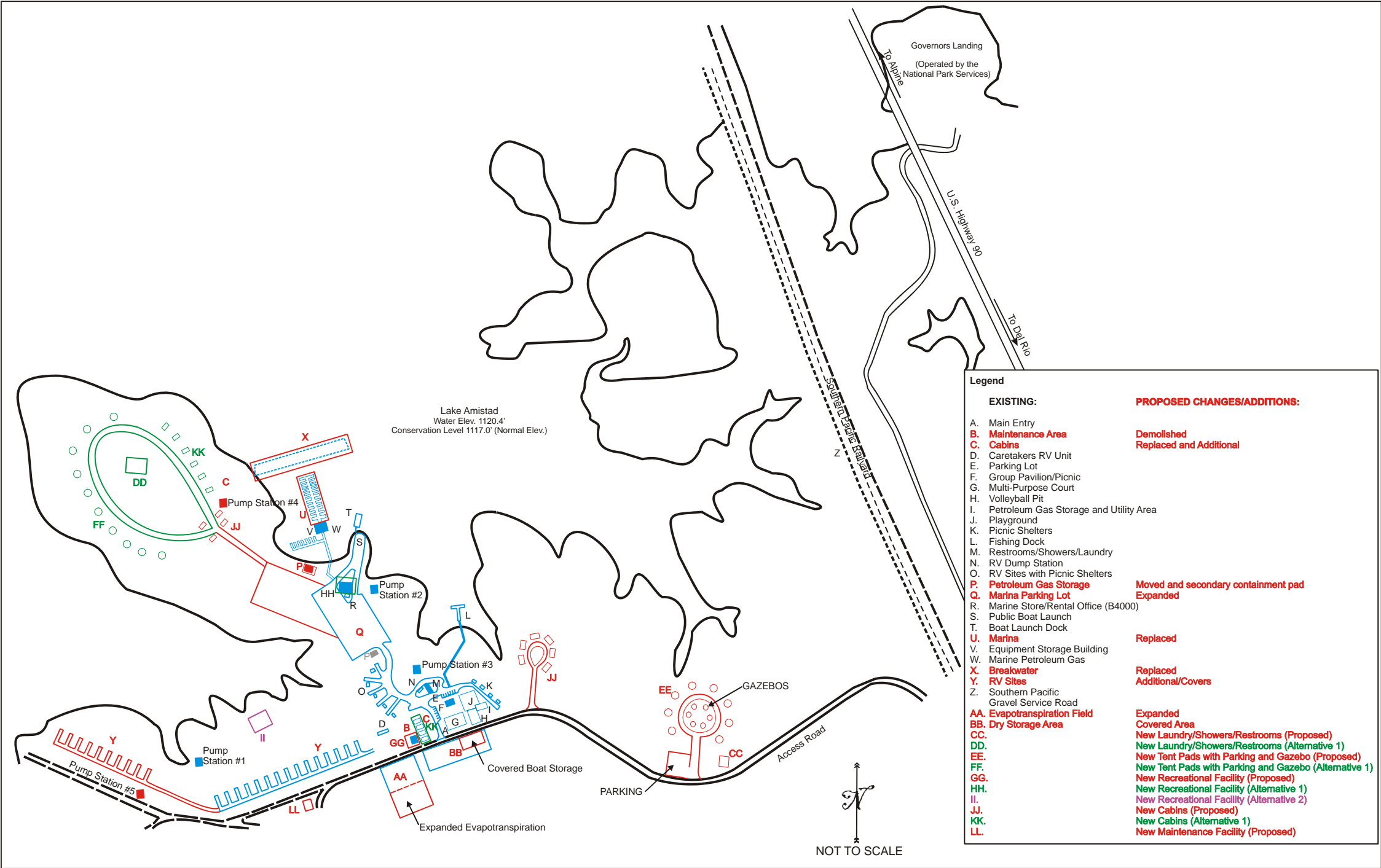


Figure 2-2 Conceptual Drawing of Proposed Action, Laughlin Southwinds Marina Complex

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Both the marina dock system and breakwater system would be reconstructed as part of the proposed action. Both systems would be constructed using engineering standards and materials accepted within the industry. As part of the expanded services and facilities at the marina complex, the evapotranspiration fields would also be expanded and two additional pump stations would be added to the complex. All of the existing and proposed facilities are depicted on Figure 2-2.

2.5 DESCRIPTION OF THE NO-ACTION ALTERNATIVE

Under the no-action alternative Laughlin AFB would not implement any of the actions proposed in Section 2.4. All of the current operations and functions would remain in the existing facilities at Laughlin AFB and Laughlin Southwinds Marina Complex. There would be no new construction or demolition activities under the no-action alternative.

2.6 DETAILED DESCRIPTION OF OTHER ACTION ALTERNATIVES

2.6.1 Laughlin AFB

As discussed in Section 2.2, the criteria for selecting alternatives varied between each of the individual projects. However, given the mission requirements, the comprehensive planning goals for the installation, operational efficiencies of each program, and the requirement to identify cost effective alternatives, no alternatives were defined other than the proposed action and the no-action alternative for those projects on Laughlin AFB.

2.6.2 Laughlin Southwinds Marina Complex Alternative Siting

Given the undeveloped nature of a portion of the Laughlin Southwinds Marina Complex, base planners have some flexibility as to the specific siting preferences with relation to some of the support facilities. Two different siting alternatives were identified for the Recreational Facility. Under the first siting alternative the Marine Store/Rental Office (Building 4000) would be demolished and a new Recreational Facility built at that location. Under the second siting alternative the Air Force would still demolish Building 4000, however, the new Recreational Facility would be located just north of the existing recreational vehicle sites. Either facility would be of the same size as the facility listed in Table 2-4 of the proposed action.

An alternative siting location was also identified for cabins, laundry/showers/restrooms facility, and tent pads sites as depicted in Figure 2-2. Additionally, as part of the alternative action, the four existing cabins would also be demolished; however, four new cabins would be constructed at the same location as the existing cabins, and the remaining six cabins would be located as depicted in Figure 2-2.

Table 2-4 Various Alternative Actions at the Laughlin Southwinds Marina Complex

Description	New Construction (Square Feet)	Demolition (Square Feet)
Maintenance Building/Boat Repair Facility	4,000	1,690
Recreational Center	4,000	1,200
Covered Boat Storage for 30 Boats	9,000	---
Cabin Sites (10 each)	2,040	816
Concrete Tent Pads (8 each) with 6 Gazebos	1,485	---
Laundry/Shower/Restrooms Facility	800	---
Additional Roadway for Cabins and Tent Sites	50,400	---
Covers for the Existing 15 Recreation Vehicle Sites	---	---
Recreational Vehicle Sites (10 each) and Roadway	24,000	---
Marina Parking Expansion	150,000	---
Relocation of Petroleum Gas Tank and Secondary Containment System Pad	400	---
Reconstruction of Marina Dock System	---	---
Reconstruction of Breakwater	---	---
Evapotranspiration Fields	60,000	---
Pump Stations	200	---
TOTAL	306,325	3,706

2.7 PAST, PRESENT, AND REASONABLY FORESEEABLE ACTIONS IN THE REGION OF INFLUENCE

Cumulative impacts to environmental resources result from the incremental effects of proposed actions when combined with other past, present, and reasonably foreseeable future projects in the region of influence. Cumulative impacts can result from individually minor, but collectively substantial, actions undertaken over a period of time by various agencies (federal, state, or local) or individuals. In accordance with NEPA, a discussion of cumulative impacts resulting from projects that are proposed, under construction, recently completed, or anticipated to be implemented in the near future is required. Specific projects that have the potential to cumulatively impact activities at Laughlin AFB are described in the sections below. The relative locations of each of the following projects

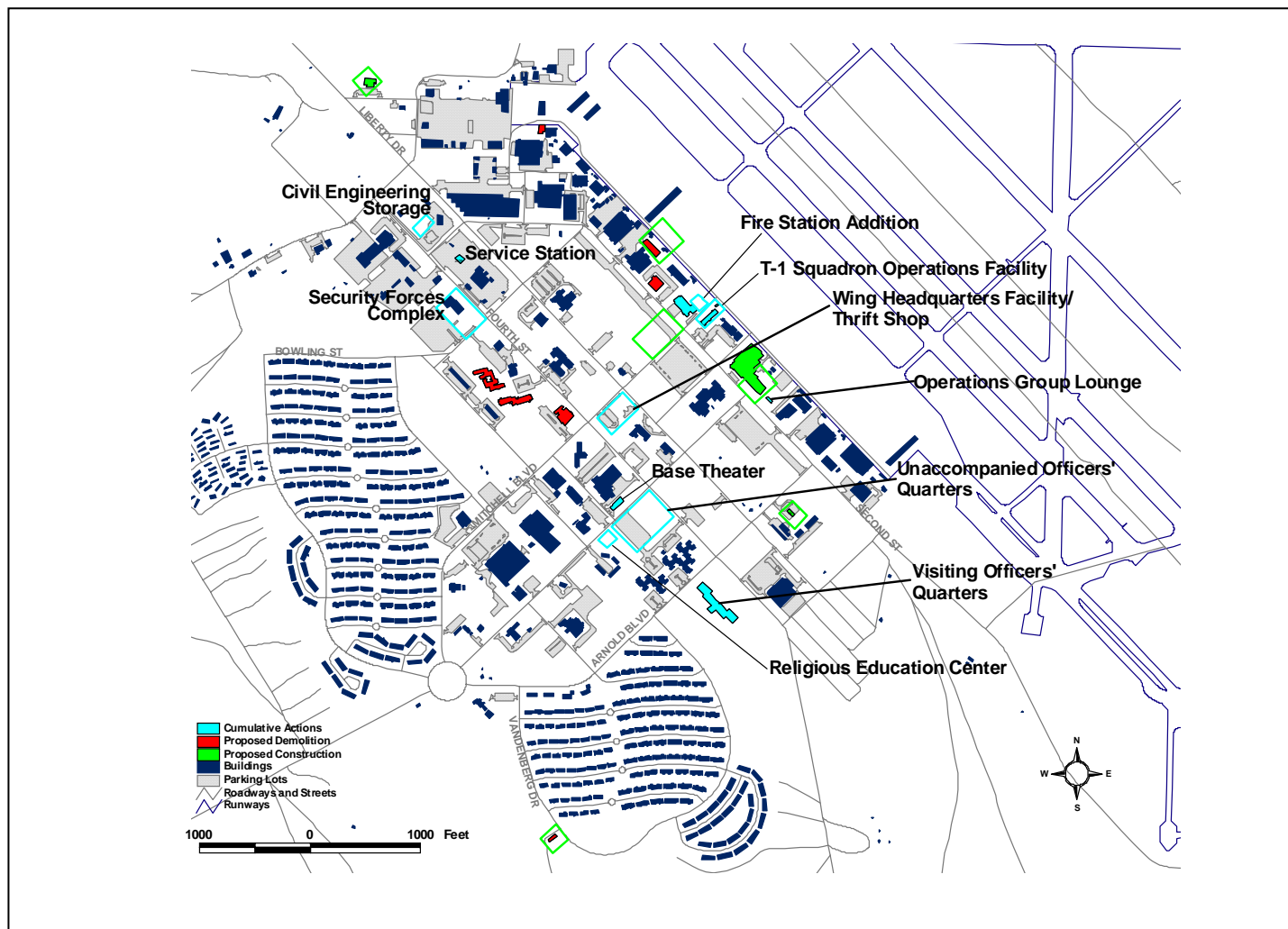
are depicted in Figure 2-3. Additionally, Table 2-5 provides a list of all of the construction and demolition activities associated with the projects discussed in the following sections. There were no other past, present, or reasonably foreseeable actions identified within the region of influence of Laughlin Southwinds Marina Complex.

Table 2-5 Construction and Demolition Efforts Past, Present and Reasonably Foreseeable Future

Description	New Construction (Square Feet)	Demolition (Square Feet)
Fire Station Addition	Complete	Complete
Service Station – Construction Inside Building 2109	----	----
Wing Headquarters Facility – Under Construction	60,580*	28,731*
Visiting Officers' Quarters	Complete	Complete
Unaccompanied Officers' Quarters	70,000	----
Security Forces Complex	18,380	6,104
Construct T-1 Squadron Operations Facility	23,000	7,449
Demolition of Civil Engineering Storage	----	624
Demolition of Base Theater	----	5,061
Demolition of Thrift Shop	----	----**
Demolition of Operations Group Lounge	----	1,680
Demolition of Religious Education Center	----	4,370
TOTAL	171,960	54,019
* Already under construction/demolition		
** Square footage of demolished area already accounted for in the Wing Headquarters Facility		

2.7.1 Construction of Fire Station Addition

The new 4,000-square foot addition was added to the existing fire station at Building 220 and contains 20 private sleeping quarters, common latrine, and storage room. The previous building had a concrete floor and foundation, a truss and column steel frame, and a metal roof. The new sleeping area has individual quarters affording noise level reduction and protection from the hazards of the vehicle parking area of the facility. The addition has backup power and communications systems, energy efficient lighting, heating, and cooling features. No additional parking spaces were necessary.



**Figure 2-3 Locations of Past, Present, and Reasonably Foreseeable Future Actions
Laughlin Air Force Base, Texas**

2.7.2 Installation of a Service Station

The new facility will be constructed inside the transportation facility at Building 2109. Vehicles using compressed natural gas (CNG) fuel will have supporting fueling infrastructure. The components of the CNG fueling station will include:

- high pressure fuel storage tanks;
- fuel dispensers;
- gas compressors;
- gas conditioners (to remove oil contaminants);
- connections to existing fuel distribution infrastructure;
- metering equipment;
- safety equipment; and
- optional liquefied natural gas storage tanks, chillers, and other special equipment.

These components will be assembled on a platform, or skid, and transported as a unit to a transportation compound. The platform will be anchored into place and the station connected to the existing fuel supply and operating energy source (electricity or natural gas).

2.7.3 Construction of Wing Headquarters Facility

A new 26,000-square foot wing headquarters facility is being constructed in an area immediately north of the existing wing headquarters. Prior to construction of the new facility, Building 336 (Thrift Shop) was demolished to make room for the facility. The building will have a reinforced concrete foundation and floor slab, structural steel frame, pre-cast concrete exterior walls, and standing seam metal roof. The new facility will include passive force protection measures, fire detection system, and an emergency power generator. An estimated 34,580 square feet of new parking space will be provided for occupants and visitors.

Upon completion of the new facility, the existing 15,887-square foot wing headquarters building and 12,844-square foot parking lot will be demolished. The existing wing headquarters building was constructed of wood and stucco siding in 1955 and will require asbestos abatement. It is anticipated that the existing building contains LBP due to the age of the structure. Any materials considered to be hazardous will be disposed of according to RCRA regulations and the Laughlin AFB Hazardous Waste Management Plan.

2.7.4 Construction of Visiting Officers' Quarters/Visiting Accompanied Officers' Quarters Facility

A new 66,000-square foot, two-story Visiting Officers' Quarters/Visiting Accompanied Officers' Quarters (VOQ/VAQ) facility was constructed in an open area on the southwest corner of Arnold Boulevard and Fourth Street. The building has a reinforced concrete foundation and floor slab, structural steel frame, pre-cast concrete exterior walls, and standing seam metal roof. The new lodging facility accommodates a maximum of 96 personnel and contains laundry rooms, registration desk, housekeeping areas, and a small conference center. The facility also has private baths and bedrooms for all occupants. An estimated 12,000-square foot parking space was also provided. Upon completion of the new facility, the existing 22,408-square foot facility (Building 470) was demolished.

2.7.5 Construction of 120-Room Unaccompanied Officers' Quarters

A new 54,000-square foot, two story Unaccompanied Officers' Quarters will be constructed in an open area on the southwest corner of Fourth Street and Laughlin Drive. The building will have a reinforced concrete foundation and floor slab, structural steel frame, pre-cast concrete exterior walls, and standing seam metal roof. The new lodging facility will accommodate a maximum of 120 personnel and contain kitchenettes, private baths, living and sleeping areas, and closet space. The facility will also contain passive force protection. An estimated 16,000-square foot of parking space will be provided for the occupants and visitors. Currently 60 students are living off base until the new facility is completed.

2.7.6 Construction of Security Forces Complex

A new 13,380-square foot security forces complex was constructed adjacent to the existing facility complex just east of Building 140. The building has a reinforced concrete foundation and floor slab, structural steel frame, pre-cast concrete exterior walls, and standing seam metal roof. The new complex consolidates all the current security forces functions in one building. The new complex contains office spaces, a work center containing a communications console for contact of law enforcement and base security functions, confinement cell, arms control room, training and maintenance areas, classrooms, off-road equipment storage area, and fencing around vehicle parking and storage areas. Approximately 5,000 square feet of parking space was also added to the area.

Two of the existing four buildings (Buildings 141 and 144) at the existing security forces complex were demolished prior to completion of the new facility. The remaining two buildings (Buildings 140 and 143) were demolished after construction of the new complex. The total building area demolished was 6,104 square feet. The existing canine training area remained in service.

2.7.7 Construct T-1 Squadron Operations Facility

A new 23,000-square foot precast concrete facility will be constructed to house the T-1 Squadron Operations. The new facility will be located where Buildings 301 and 302 are currently, and both of these buildings will be demolished prior to construction. Once the new facility is complete, the squadron will be relocated from Building 401 and the existing facility will be converted to swing space for future construction activities on the installation. Building 301 is a 7,098-square foot facility constructed of masonry and stucco siding in 1956. The building is used as by the Manpower Support Function. This function will be transferred to the new wing headquarters after construction. The building contains LBP and asbestos. Building 302 is a 351-square foot storage facility of concrete masonry unit (CMU) construction. The facility was constructed in 1942 and has LBP and asbestos. Any materials considered to be hazardous will be disposed of according to RCRA regulations and the Laughlin AFB Hazardous Waste Management Plan.

2.7.8 Demolition of Civil Engineering Storage (Building 116)

The 624-square foot pre-fabricated metal building was dismantled before demolition of the concrete slab. All supplies and materials was salvaged and taken to a centralized facility and consolidated for storage. Following demolition, the site was landscaped according to the Laughlin AFB Landscaping Plan.

2.7.9 Demolition of Base Theater (Building 351)

The 5,061-square foot facility was constructed of masonry and stucco siding in 1956. The building contains LBP and asbestos. Any materials considered to be hazardous will be disposed of according to RCRA regulations and the Laughlin AFB Hazardous Waste Management Plan. The building will be demolished and the site landscaped according to the Laughlin AFB Landscaping Plan. The manpower support functions for the contractor who is currently using part of the building will be transferred to another facility on base that has similar space. Likewise, briefings conducted by the Unit or Base Commander will be held at another location on base with suitable space.

2.7.10 Demolition of Thrift Shop (Building 336)

The 9,021-square foot wood framed building was constructed in 1953. The building contained LBP and asbestos. Any materials considered to be hazardous were disposed of according to RCRA regulations and the Laughlin AFB Hazardous Waste Management Plan. This facility and the associated 15,493-square foot parking lot were demolished to make room for the new wing headquarters building. The manpower support functions for the credit union and government employee union representative were transferred to other suitable locations on base.

2.7.11 Demolition of Operations Group Lounge (Building 404)

The 1,680-square foot building was constructed of masonry in 1956. The building contains LBP and asbestos. Any materials considered to be hazardous will be disposed of

according to RCRA regulations and the Laughlin AFB Hazardous Waste Management Plan. The building will be demolished and the site landscaped according to the Laughlin AFB Landscaping Plan. The manpower support functions will be transferred to another suitable facility closer to the Base Operations Complex near the flight line.

2.7.12 Demolition of Religious Education Center (Building 237)

The 4,370-square foot wood framed building was constructed in 1954. The building contained LBP. All materials considered to be hazardous were disposed of according to RCRA regulations and the Laughlin AFB Hazardous Waste Management Plan. The building was demolished and the site landscaped according to the Laughlin AFB Landscaping Plan. The manpower support functions were transferred to other suitable locations on base.

2.8 COMPARISON MATRIX OF ENVIRONMENTAL EFFECTS OF ALL ALTERNATIVES

Table 2-6 summarizes the impacts of the proposed and alternative actions. No significant impacts are expected from either the proposed or alternative actions. The impacts for the no-action alternative are the same as baseline conditions.

Table 2-6 Summary of Environmental Effects

Resource	Proposed Action	Laughlin Southwinds Marina Complex Alternative Siting	No-action Alternative
Noise	No long-term noise impacts. Short-term noise created by the proposed action would not impact sensitive receptors on, or adjacent to Laughlin AFB or Laughlin Southwinds Marina Complex. There would be no measurable cumulative impacts to sensitive receptors as a result of the proposed action and other foreseeable actions.	Impacts would be the same as described for the proposed action.	Same as for baseline conditions as presented in Section 3.3.1. There would be no measurable cumulative impacts to sensitive receptors for the no-action alternative action and other foreseeable actions.
Air Quality	Emissions of all pollutants would be less than 250 tpy combined; therefore, the proposed action would not be considered regionally significant. The cumulative emissions of all pollutants associated with the proposed action and other foreseeable actions would be less than 250 tpy combined, and therefore, would not be jeopardize regional air quality.	Impacts would be the same as described for the proposed action.	Same as for baseline conditions as presented in Section 3.3.2. There would be no cumulative impacts to regional air emissions as a result of the no-action alternative and other foreseeable actions.
Earth Resources	There would be limited soil disturbing activities from the proposed construction and demolition activities. There would be no measurable cumulative impacts to earth resources as a result of the proposed and other foreseeable actions.	Impacts would be the same as described for the proposed action.	Same as for baseline conditions as presented in Section 3.3.3. There would be no measurable cumulative impacts to earth resources from the no-action alternative and other foreseeable actions.
Water Resources	The proposed action would decrease acres of impervious cover on Laughlin AFB. The decrease would equate to a minor decrease in stormwater runoff for the base. The construction and demolition projects at the Laughlin Southwinds Marina Complex would be expected to increase stormwater runoff by 34.4 cubic feet per second. The increase in stormwater runoff would be within the design capacity of Lake Amistad. The decrease in impervious cover and subsequent decrease in stormwater runoff would offset the increase in impervious cover and stormwater runoff associated with the on-going actions on Laughlin AFB by 1.25 cubic feet per second. Cumulative impacts to water resources at Laughlin Southwinds Marina Complex as a result of the proposed action and other foreseeable actions would not be expected.	Impacts would be the same as described for the proposed action.	Same as for baseline conditions as presented in Section 3.3.4. The amount of impervious cover and subsequent stormwater runoff would be greater as a result of the no-action alternative and on-going actions on Laughlin AFB. There would be no cumulative impacts to water resources at the Laughlin Southwinds Marina Complex.

Table 2-6 Summary of Environmental Effects (Continued)

Resource	Proposed Action	Laughlin Southwinds Marina Complex Alternative Siting	No-action Alternative
Hazardous Materials and Hazardous Waste	<p>Hazardous materials would be consumed during the demolition and construction project. Hazardous waste could be generated from demolition and construction activities. The new facilities would not use, manage, or store hazardous materials or generate hazardous waste.</p> <p>Lead-based paint and asbestos would be managed and disposed according to established plans and regulatory guidance.</p> <p>Project planners would coordinate all site disturbance activities at Site SS015 and AOC04 with IRP project personnel at the preliminary planning stages to minimize any potential conflicts and gain the necessary regulatory guidance. Any IRP waste would be managed in accordance with existing plans and procedures established by Laughlin AFB.</p> <p>There would be no measurable cumulative impacts to hazardous materials, hazardous waste, asbestos, and lead-based paint would be expected from the proposed or other foreseeable actions.</p>	Impacts would be the same as described for the proposed action.	<p>Same as for baseline conditions as presented in Section 3.3.5.</p> <p>There would be no measurable cumulative impacts to hazardous materials, hazardous waste, asbestos, and lead-based paint would be expected from the no-action alternative or other foreseeable actions.</p>
Biological Resources	<p>The proposed demolition and construction activities would occur within previously disturbed portions of Laughlin AFB. Most of the proposed project areas at the Laughlin Southwinds Marina Complex would also occur in areas that have been previously disturbed or do not possess unique habitat. There would be no measurable impacts to vegetative resources.</p> <p>Two state-listed threatened species have previously been identified on Laughlin AFB. The habitats for these two species, Texas indigo snake and Texas horned lizard, are not conducive to developed areas similar to those of the individual project sites. Therefore, there would be no impact to these species as a result of the proposed action.</p> <p>None of the proposed projects sites would be located in the 100-year floodplain or wetland areas on Laughlin AFB. All of the facilities at the Laughlin Southwinds Marina Complex with the exception of the dock system and boat ramp would be above the maximum flood elevation for Lake Amistad.</p> <p>There would be no cumulative impacts to biological resources as a result of the proposed action and on-going actions.</p>	Impacts would be the same as described for the proposed action.	<p>Same as for baseline conditions as presented in Section 3.3.6.</p> <p>Cumulative impacts to biological resources from the no-action alternative and other foreseeable actions would not be expected.</p>

Table 2-6 Summary of Environmental Effects (Continued)

Resource	Proposed Action	Laughlin Southwinds Marina Complex Alternative Siting	No-action Alternative
Utilities and Infrastructure	<p>There would be no change in the number of individuals working or living on Laughlin AFB. Therefore, there would be no measurable change in the amount of electricity, natural gas, or potable water used on the installation or volume of sanitary waste generated. Although recreational use of the marina complex would be expected to increase, the managers have been operating at or beyond capacity. Facilities were designed to accommodate this growth, therefore, the increase in electricity, natural gas, and potable water use. The existing evapotranspiration field would be increased to accommodate the increase in sanitary waste generated by the proposed action.</p> <p>The amount of stormwater runoff on Laughlin AFB would decrease. However, stormwater runoff would increase at the Laughlin Southwinds Marina Complex. This increase would flow naturally into Lake Amistad and would be within the design capacity of the lake.</p> <p>The construction and demolition activities would generate an increase in the amount of solid waste generated at both Laughlin AFB and the Laughlin Southwinds Marina Complex. However, the expected amount would not impact the life expectancy of that landfill.</p> <p>The construction and demolition activities would create a short-term impact to transportation near the individual project sites. However, this impact would be temporary in duration.</p> <p>The expected cumulative impact to utilities and infrastructure resulting from the implementation of the proposed action and other foreseeable actions would be within the design capacity of each system and regional degrade the resource.</p>	<p>Impacts would be the same as described for the proposed action including an increase in stormwater runoff at the Laughlin Southwinds Marina Complex and an increase in solid waste generation. As with the proposed action, the increase in stormwater would be within the design capacity of Lake Amistad and the increase in solid waste would not impact the life expectancy of the regional landfill. Cumulative impacts would be consistent to those defined for the proposed action.</p>	<p>Same as for baseline conditions as presented in Section 3.3.7.</p> <p>Cumulative impacts to utilities and infrastructure from the no-action alternative and other foreseeable actions would not be expected.</p>
Socioeconomics	<p>There would be no measurable impact on the local or regional economy as a result of the proposed action. There would be no impact on the number of individuals living in the region, economy, or housing market. The amount of money generated by the construction and demolition activities would be consistent with recent efforts on Laughlin AFB. Therefore, there would not be any measurable impacts on socioeconomics as a result of the proposed action.</p> <p>There would be no cumulative impact to socioeconomics resulting from the implementation of the proposed action and other foreseeable actions.</p>	<p>Impacts would be the same as described for the proposed action.</p>	<p>Same as for baseline conditions as presented in Section 3.3.8.</p> <p>Cumulative impacts to socioeconomics from the no-action alternative and other foreseeable actions would not be expected.</p>
typ AFB AOC IRP	tons per year Air Force Base Areas of Concern Installation Restoration Program		

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CHAPTER 3

AFFECTED ENVIRONMENT

The affected environment is the baseline against which potential impacts caused by the proposed action are assessed. This chapter focuses on the human environment that has the potential to be affected by the proposed construction and demolition activities. As stated in 40 CFR §1508.14, the human environment potentially affected is interpreted comprehensively to include the natural and physical resources and the relationship of people with those resources. The approach to defining the environmental baseline was to first identify potential issues and concerns of the proposed action as discussed in Section 4.0. From this information, the relevant resources are described.

3.1 INTRODUCTION

This chapter provides baseline data for the man-made and natural environmental elements that could potentially be affected by the proposed action and alternatives at Laughlin AFB. Information is presented in this section to the level of detail necessary to support the analysis of potential impacts in Chapter 4, Environmental Consequences.

3.2 INSTALLATION LOCATION, HISTORY, AND CURRENT MISSION

Laughlin AFB was established on July 2, 1942 as the Army Air Corps Laughlin Field. Named in honor of Del Rio native 1st Lt. Jack T. Laughlin. The field initially provided transition training for pilots in the Martin B-26 Marauder medium bomber from 1942 until deactivation in 1945. From 1945 to 1952, the base area was used for local cattle grazing and as an army air field. Laughlin Field reopened as Laughlin AFB in 1952 to provide combat crew training in the Republic F-84 Thunderjet during the Korean Conflict. The base was transferred to the Strategic Air Command in 1957. The mission of the 4080th Strategic Reconnaissance Wing was to provide high altitude weather reconnaissance in the Martin RB-57. Beginning in 1960, Laughlin AFB provided all air and ground crew training for the Lockheed U-2A. In 1963, Laughlin AFB was transferred to the Air Training Command (now the AETC), and Undergraduate Pilot Training (now SUPT) became the primary mission of the base (USAF 2000).

Laughlin AFB is home to the 47 FTW. Its mission is to provide pilot training for USAF personnel, as well as international students, in the T-6, T-38, and T-1 aircraft. Mission support functions are provided by assigned units including administration, communications, personnel, transportation, security, finance, supply, maintenance, and medical services (USAF 2000).

3.3 DESCRIPTION OF THE AFFECTED ENVIRONMENT

3.3.1 Noise

Noise is usually defined as unwanted sound, a definition that includes both the psychological and physical nature of the sound (AIHA 1986). Under certain conditions, noise may cause hearing loss, interfere with human activities at home and work, and may affect human health and well-being in various ways.

Sound pressure level (L_p) can vary over an extremely large range of amplitudes. The decibel (dB) is the accepted standard unit for measuring the amplitude of sound because it accounts for the large variations in amplitude and reflects the way people perceive changes in sound amplitude. Sound levels are easily measured, but the variability is subjective and physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation by subjective terms such as “loudness” or “noisiness.” Table 3-1 presents the subjective effect of changes in sound pressure level.

Table 3-1 Subjective Effects of Changes in Sound Pressure Level

Change in Sound Level (dB)	Change in Power		Change in Apparent Loudness
	Decrease	Increase	
3	1/2	2	Just perceptible
5	1/3	3	Clearly noticeable
10	1/10	10	Half or twice as loud
20	1/100	100	Much quieter or louder
dB – decibel Source: Bies and Hansen 1988			

Different sounds contain different frequencies. When describing sound and its effect on a human population, A-weighted (dBA) sound levels are typically used to account for the response of the human ear. The term “A-weighted” refers to a filtering of the noise signal, which emphasizes frequencies in the middle of the audible spectrum and de-emphasizes low and high frequencies in a manner corresponding to the way the human ear perceives sound. This filtering network was established by the American National Standards Institute (ANSI 1983). The A-weighted noise level has been found to correlate well with people’s judgments of the noisiness of different sounds and has been used for many years as a measure of community noise. Figure 3-1 shows the typical A-weighted sound levels for various sources.

Community noise levels usually change continuously during the day. However, community noise exhibits a daily, weekly, and yearly pattern. Several descriptors have been developed to compare noise levels over different time periods. One descriptor is the equivalent sound level (L_{eq}). The L_{eq} is the equivalent steady-state A-weighted sound level that would contain the same acoustical energy as the time-varying A-weighted sound level during the same time interval.

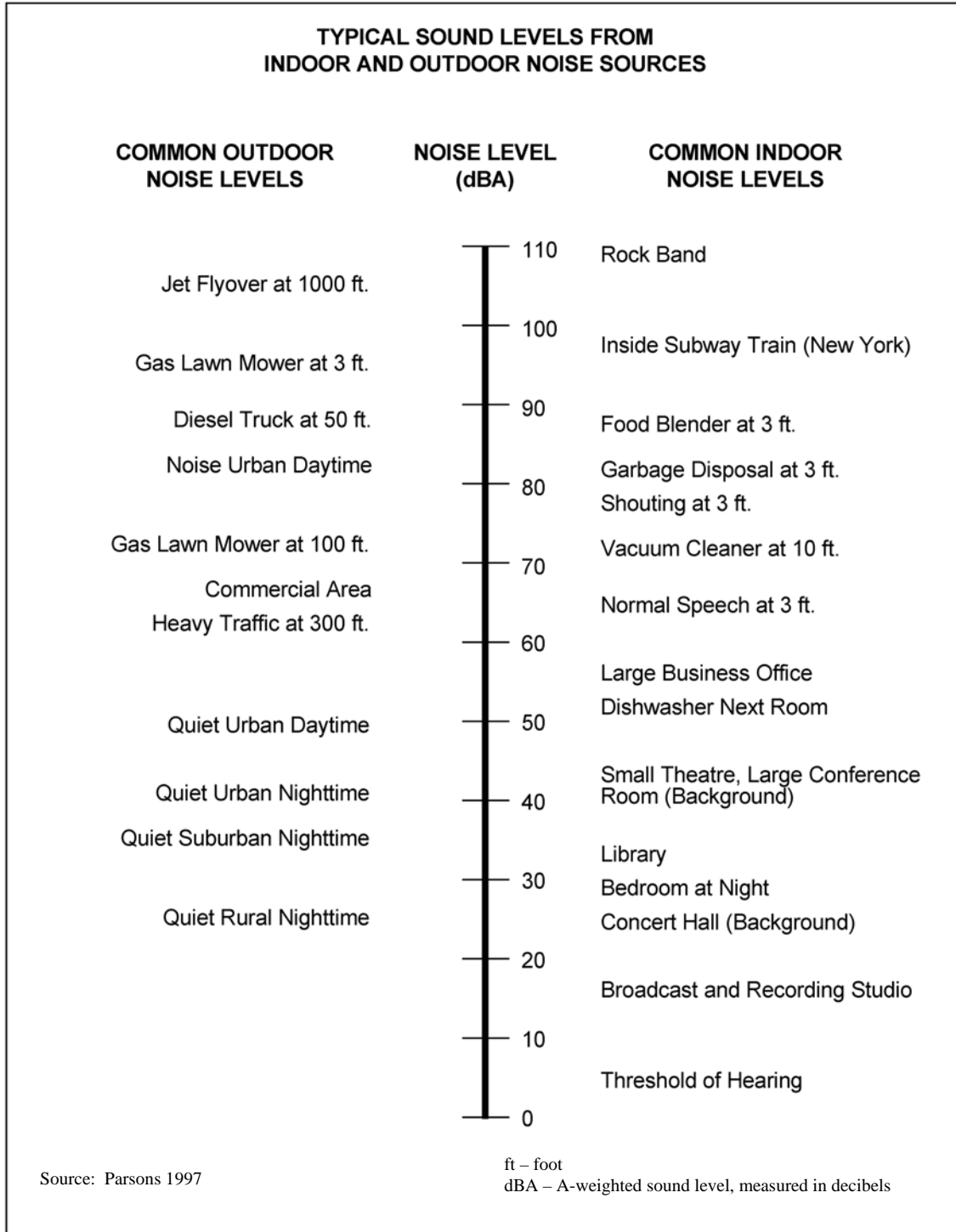


Figure 3-1 Typical A-weighted Sound Levels

Another descriptor, the day-night average sound level (DNL), was developed to evaluate the total daily community noise environment. DNL is the average A-weighted acoustical energy for a 24-hour period with a 10 dB upward adjustment added to the nighttime levels (10:00 p.m. to 7:00 a.m.). This adjustment is an effort to account for the increased sensitivity of most people to noise in the nighttime hours. The DNL has been adopted by the United States Environmental Protection Agency (USEPA), the FAA, and the Department of Housing and Urban Development as the accepted unit for quantifying human annoyance to general environmental noise.

3.3.1.1 Effects of Noise Exposure

Annoyance is the primary human response to intermittent environmental noise that includes relatively long intervals of quiet (AIHA 1986). The degree of annoyance has been found to correlate well with the DNL. A comparison of the DNL with the percentage of the exposed population that is “highly annoyed” in combination with the estimated population exposed to DNL levels greater than 65 dBA provides an estimate of the number of persons highly annoyed by aircraft noise. These levels of annoyance are based on long-term exposure. Annoyance for short-term activities, such as construction noise and new flight patterns, can be influenced by many factors, including habituation and attitude toward the activity creating the noise. Nonetheless, a comparison of this type provides the best available information to predict reactions to a new noise exposure.

3.3.1.2 Baseline Noise

The primary source of noise in the vicinity of Laughlin AFB is airfield operations and aircraft maintenance. The noise contours used to establish the baseline conditions at Laughlin AFB were obtained from the SUPT EA. Aircraft activities include pilot training, aircraft maintenance, and transient military operations.

The noise associated with activities at Laughlin AFB is characteristic of the noise associated with flying operations at most Air Force installations and civilian airports. During periods of no aircraft activity at Laughlin AFB, noise associated with base activities results primarily from maintenance and shop operations, ground traffic movement, occasional construction, and similar sources. This noise is almost entirely restricted to the base itself and is comparable to sounds that occur in adjacent communities. It is during periods of aircraft ground or flight activity that the noise environment changes.

Analysis of noise contours for Laughlin AFB indicates that T-6, T-1, and T-38 operations will be the dominant noise sources at Laughlin AFB beginning in FY06 when construction of the proposed projects would take place. To reduce noise impacts, the 47FTW limits most of its intensive operations to weekdays between 6:00 a.m. and 10:00 p.m. Aircraft are not allowed to takeoff, accomplish touch and go operations, land, or conduct low approaches between 10:00 p.m. and 6:00 a.m. unless night flying is scheduled, and then only during the hours of the scheduled night flying period. No unsuppressed engine runs are conducted during that period (USAF 2000).

Figure 3-2 depicts the noise contours from aircraft operations at Laughlin AFB. These contours are representative of the noise environment in the vicinity of the airfield based on the level of airfield operations forecast in the JPATS EA (USAF 2000). Noise levels represented in the figure reflect only the contribution of aircraft noise to ambient environmental noise levels. The noise generated by surface vehicles (e.g., cars and trucks) is not included in the contours. The contribution from such sources to the total noise level should be small except in the immediate vicinity of roads. An estimated 925 on- and off-base residents were forecast to be exposed to DNL 65 dB and higher. Most of these residents live on base (897 people) and in the area immediately west of the base along US Highway 90 (USAF 2000). Areas with a DNL above 65 dB are considered in land use compatibility and planning.

Facilities on Laughlin AFB that would be considered sensitive receptors are the base hospital, (Building 375), the child development center (Building 476), and on-base residences. These receptors are located near the DNL 70 dB noise zone (USAF 2000).

The noise levels associated with the Laughlin Southwinds Marina Complex would be consistent with those of an urban recreational area with both automobile and boat traffic noise. This noise would occur primarily during daytime hours and would vary by seasonal use and occupancy. Additionally, there is an active rail line adjacent to the property that would also contribute to noise levels in the area.

3.3.2 Air Quality

3.3.2.1 Meteorology

The climate around Laughlin AFB is characterized as semi-arid continental, with 80 percent of the annual rainfall occurring from April through October. During this period, rainfall is chiefly in the form of showers and thunderstorms often as heavy downpours resulting in flash flooding. The small amount of precipitation for November through March usually falls as steady light rain. An average of 18.35 inches of precipitation is recorded annually. Snow, hail, and sleet occur annually, but frequently melt before providing ground cover (USAF 2000).

Temperature averages indicate mild winters and hot summers. Strong, dry, dusty north and northwest winds bring in cold weather. The average temperature is 69.6 degrees Fahrenheit (°F), ranging from a mean of 51.4°F in January to 85.2°F in July and August. Clear to partly cloudy skies predominate with the mean number of cloudy days being less than the number of clear days (USAF 2000).

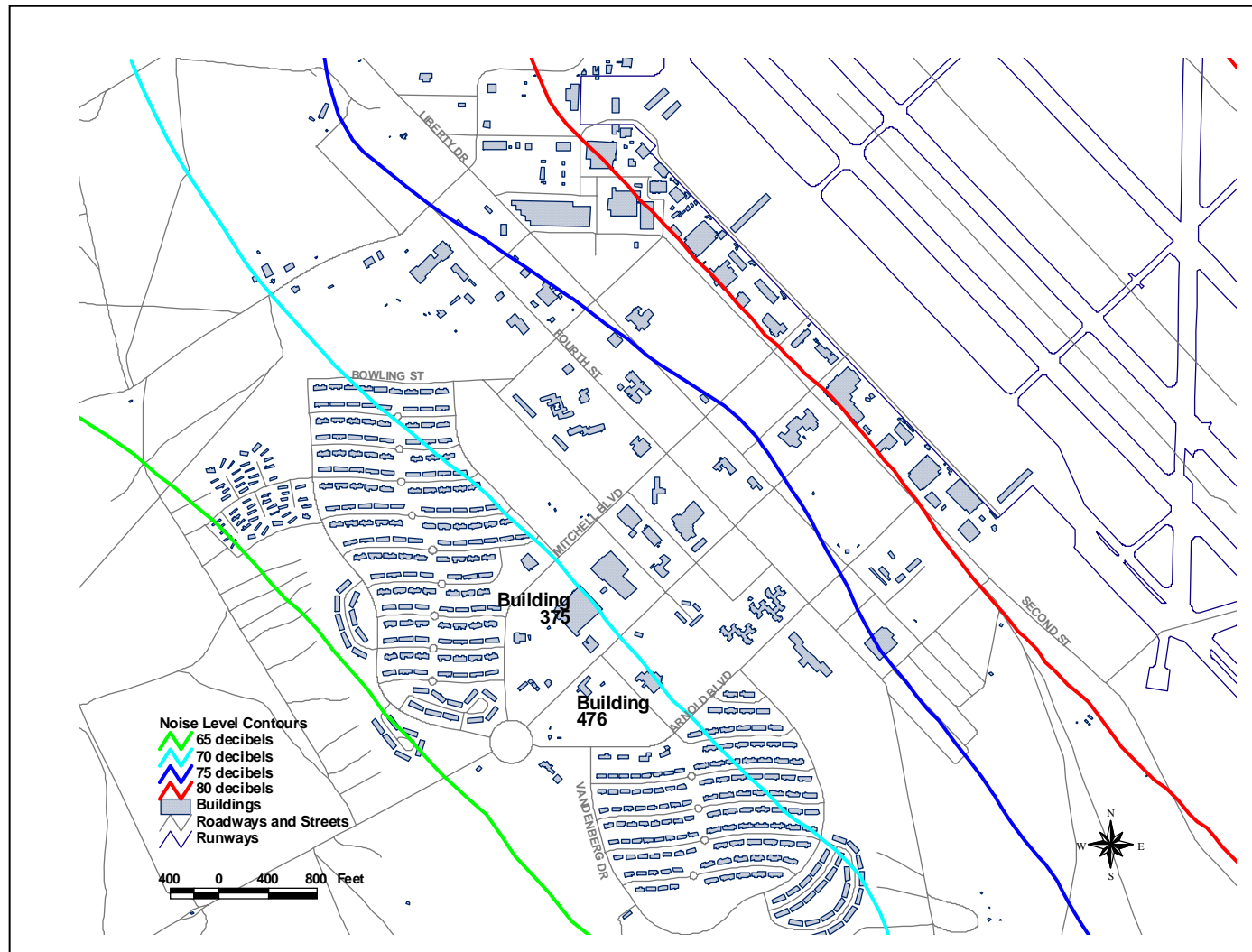


Figure 3-2 Baseline Noise Contours, Laughlin Air Force Base

3.3.2.2 Air Pollutants and Regulations

The USEPA has established primary and secondary National Ambient Air Quality Standards (NAAQS) under the provisions of the Clean Air Act (CAA). The CAA not only established the NAAQS, but also set emission limits for certain air pollutants from specific sources, set new source performance standards based on best demonstrated technologies, and established national emissions standards for hazardous air pollutants.

The USEPA classifies the air quality within an Air Quality Control Region (AQCR) according to whether the region meets federal primary and secondary NAAQS. Primary standards define levels of air quality necessary to protect public health with an adequate margin of safety. Secondary standards define levels of air quality necessary to protect public welfare (i.e., soils, vegetation, and wildlife) from any known or anticipated adverse effects of a pollutant. Federal NAAQS are currently established for six pollutants (known as “criteria pollutants”): carbon monoxide (CO), nitrogen dioxide (NO₂), ozone (O₃), sulfur oxides (SO_x, commonly measured as sulfur dioxide [SO₂]), lead, and particulate matter equal to or less than 10 microns in diameter (PM₁₀). Although O₃ is considered a criteria pollutant, and is measurable in the atmosphere, it is not often considered a pollutant when reporting emissions from specific sources. O₃ is not typically emitted directly from most emissions sources. It is formed in the atmosphere from its precursors, nitrogen oxides (NO_x) and volatile organic compounds (VOCs), which are directly emitted from various sources. Thus, NO_x, or NO₂, and VOCs are commonly reported instead of O₃.

The USEPA Office of Air Quality Planning and Standards has set national ambient air quality standards for the six criteria pollutants (Table 3-2). Units of measure for the standards shown in this table are micrograms per cubic meter of air (µg/m³), except for ozone, which is in parts per million (ppm).

The USEPA classifies the air quality within an AQCR according to whether the region meets federal primary and secondary air quality standards. An AQCR or portion of an AQCR may be classified as attainment, non-attainment, or unclassified with regard to the air quality standards for each of the six criteria pollutants. “Attainment” describes a condition in which standards for one or more of the six pollutants are being met in an area. The area is considered an attainment area for only those criteria pollutants for which the national standards are being met. “Nonattainment” describes a condition in which standards for one or more of the six pollutants are not being met in an area. “Unclassified” indicates that air quality in the area cannot be classified and the area is treated as attainment. An area may have all three classifications for different criteria pollutants.

Table 3-2 National Ambient Air Quality Standards

Pollutant	Standard Value ($\mu\text{g}/\text{m}^3$)^a	Standard Type
CO		
1 hr average	40,000	Primary
8 hr average	10,000	Primary
NO ₂		
Annual average	100	Primary and secondary
O ₃		
1 hr average	0.12	Primary and secondary
8 hr average ^b	0.08	Primary
Lead		
Quarterly average	1.5	Primary
PM ₁₀		
24 hr average ^c	150	Primary and secondary
Annual average ^d	50	Primary and secondary
PM _{2.5}		
24 hr average ^e	65	Primary
Annual average ^f	15	Primary
SO ₂		
3 hr average	1,300	Secondary
24 hr average	365	Primary
Annual average	80	Primary
^a Except for ppm for ozone. ^b New ozone 8 hour standard does not become effective until area demonstrates compliance with existing 1 hour standard. ^c Existing 24 hr standard for PM ₁₀ will remain in effect but will be adjusted to 99 th percentile of concentrations within an area. ^d Existing PM ₁₀ annual standard will remain in effect as is. ^e New PM _{2.5} 24 hour standard is based on 98 th percentile of concentrations over 1 year (averaged over 3 years) at population-oriented monitors using highest measured values. ^f New PM _{2.5} annual standard is based on 3-year average of annual arithmetic means. CO – carbon monoxide PM ₁₀ – particulate matter equal to or less than 10 microns in diameter hr - hour PM _{2.5} – particulate matter equal to or less than 2.5 microns in diameter NO ₂ – nitrogen dioxide SO ₂ – sulfur dioxide O ₃ – ozone $\mu\text{g}/\text{m}^3$ – micrograms per cubic meter		

The CAA does not make the NAAQS directly enforceable. However, the Act does require each state to promulgate a State Implementation Plan (SIP) that provides for “implementation, maintenance, and enforcement” of the NAAQS in each AQCR in the state. The CAA also allows states to adopt air quality standards that are more stringent than federal standards. As promulgated in the Texas Administrative Code (TAC), Title 30, Chapter 101.21 as amended, the State of Texas has adopted the NAAQS as the Texas standards as listed in Table 3-2.

Air quality management at Air Force installations is established in Air Force Instruction (AFI) 32-7040, *Air Quality Compliance*. AFI 32-7040 requires installations to achieve and maintain compliance with all applicable federal, state, and local standards for air quality compliance. Air quality compliance involves prevention, control, abatement, documentation, and reporting of air pollution from stationary and mobile sources. Maintaining compliance with air quality regulations may require reduction or elimination of pollutant emissions from existing sources, and control of new pollution sources.

3.3.2.3 Regional Air Quality

Laughlin AFB is located within the Metropolitan San Antonio Intrastate AQCR 217, specifically in Val Verde County. This AQCR includes the counties of Atascosa, Bandera, Bexar, Comal, Dimmitt, Edwards, Frio, Gillespie, Guadalupe, Karnes, Kendall, Kerr, Kinney, La Salle, Maverick, Medina, Real Uvalde, Val Verde, Wilson, and Zavala. The USEPA has designated the air quality within Val Verde County as better than NAAQS for SO₂, and unclassifiable for CO, Pb, NO₂, O₃, and PM₁₀. Laughlin AFB is approximately 150 miles west of the San Antonio Metropolitan area. Bexar, Comal, and Guadalupe Counties have been designated as basic nonattainment for ozone.

A complete mobile source emission inventory for Laughlin AFB has not been previously determined. Therefore, the baseline emissions inventory quantities presented in Table 3-3 include the stationary emissions reported in the Laughlin AFB 2003 Air Emissions Inventory Report for Laughlin AFB. Emissions from mobile sources and insignificant or trivial area and volume sources have not been determined for AQCR 217.

Table 3-3 2003 Basewide Emissions Inventory, Laughlin AFB

Criteria Air Pollutant	CO (tpy)	VOC (tpy)	SO _x (tpy)	NO _x (tpy)	PM ₁₀ (tpy)
Actual Emissions	19.72	9.28	0.56	6.66	1.44
Permitted Emissions	99.00	83.63	9.50	44.00	22.52
Estimated from Air Emission Report 1/1/2003 through 12/31/2003 Command Core System tpy tons per year SO _x sulfur oxide CO carbon monoxide NO _x nitrogen oxide VOC volatile organic compound PM ₁₀ particulate matter equal to or less than 10 microns in diameter					

3.3.3 Earth Resources

3.3.3.1 Geology

Regional

Laughlin AFB and Lake Amistad are located within the Devil's River Uplift geologic province. The Devil's River Uplift is a subsurface tectonic high of late Paleozoic age, which is aligned with and adjacent to the southern boundary of Val Verde County. This uplift structure is approximately 60 miles long and 18 miles wide, and it trends northwest to southeast. Generally, strata in the area strike northwest-southeast and have a regional dip to the south and southwest of 40 to 70 feet per mile (USAF 2004a).

Cretaceous-age deposits of the Comanche Series rest unconformably on Ordovician and older formations affected by the Devil's River Uplift. Comanche Series rocks are exposed throughout approximately two-thirds of Val Verde County and are composed of, in ascending order, the Trinity Group, the Fredericksburg Group, and the Washita Group. These groups predominately consist of limestones with some sands, shales, and clay (USAF 2004a).

The only Tertiary deposit in the area is the Uvalde Gravel of Pliocene age. The Uvalde Gravel consists of caliche-cemented gravels formed from erosion of Cretaceous rocks. Reeves and Small (USAF 2004a) did not include the Uvalde Gravel in their chart of stratigraphic units. In localized areas where the Buda Limestone is not present, the Uvalde Gravel overlies the Del Rio Clay. Quaternary deposits in the region are represented by alluvium and colluvium of Pleistocene to Recent Age (USAF 2004a).

3.3.3.2 Topography

Most of Val Verde County lies within the Edwards Plateau physiographic province, which is a Texas subdivision of the Great Plains physiographic province. The topography of this province is typified by rough and rolling terrain (USAF 2004a). The extreme southeastern part of the county, in the vicinity of Del Rio, is located in the Gulf Coast Plain physiographic province, also referred to as the Rio Grande Plain. The topography of this province is characteristically flat to gently rolling with elevations within the base boundaries ranging from a low of 1,038 feet above mean sea level (msl) in the east and southeast portion of the base, to a high point of 1,130 feet above msl near the northwest corner of the base. The airfield and the central portion of Laughlin AFB are generally flat, partially a result of construction grading. The western and northwestern portions of the base are gently rolling and exhibit slightly more topographic relief (USAF 2004a).

The Rio Grande River is located approximately 6 miles south of the Laughlin AFB boundary. Del Rio, and the adjacent Mexican city of Ciudad Acuña border the Rio Grande River (USAF 2004a). Lake Amistad is located approximately 20 miles northwest of the Laughlin AFB and only 13 miles northwest of Del Rio (Figure 1-1).

3.3.3.3 Soils

The dominant soil type for Val Verde County is Zapata-Vinegarron complex. The soil complex is characterized as having 60 percent Zapata, 30 percent Vinegarron, and 10 percent other. Zapata soil, located on uplands, has a surface layer about 8 inches thick with slopes ranging from 1 percent to 5 percent. Vinegarron soils are loamy, well drained, and moderately permeable. Both soils are moderately alkaline with pH ranges from 7.9 to 8.4 (USAF 2000).

3.3.4 Water Resources

3.3.4.1 Surface Water

Laughlin AFB is located in the southeastern section of the Rio Grande drainage basin. Average annual rainfall for Laughlin AFB is 18 inches. The majority of precipitation occurs from April through October. The general direction of surface water flow is southeast into the Rio Grande and down toward the Gulf of Mexico. Lake Amistad reservoir, located approximately 20 miles northwest of Laughlin AFB, impounds approximately 3,383,000 acre-feet of water and has an average monthly release of 2,400 cubic feet per second. Because the reservoir was a cooperative undertaking between the United States and Mexico, Texas was allocated 56.2 percent of the available surface water. Texas Commission on Environmental Quality (TCEQ) characterized Lake Amistad reservoir as having excellent water quality (USAF 2000).

Laughlin AFB contains a total of 19 acres of surface water, which includes sewage treatment ponds and golf course water hazards. There are no permanent streams occurring on base. However, Sacatosa and Zorro Creeks, respectively, flow intermittently along the southeastern boundary and northwest corner of the base. All surface water on base is nonpotable (USAF 2000).

3.3.4.2 Groundwater

The regional south to southwestward dip of the stratigraphic units controls groundwater flow, which generally parallels the regional dip. The regional south/southwestern flow direction of the groundwater refers to water levels measured from wells screened in the Salmon Peak Aquifer, and does not necessarily reflect the flow direction of shallow (near surface) water-bearing zones. It should be noted that the regional groundwater flow direction is generalized over all of Val Verde County and applies to both Laughlin AFB and Laughlin Southwinds Marina Complex (USAF 2004a).

Most groundwater enters Val Verde County as underflow from adjacent counties to the north and east. Solution weathering of faults, fractures, and joints enhances the occurrence and movement of groundwater. Aquifers are recharged primarily by precipitation and stream flow over outcrop areas, and by vertical seepage along faults and interformational fractures (USAF 2004a).

The principal fresh water-bearing units are the limestones of the Cretaceous Edwards Group (Salmon Peak Limestone, McKnight Formation, West Nueces Formation, and Comanche Peak Limestone). Water discharged from seeps and springs is the primary source of water in the county. San Felipe Springs, a flowing artesian spring located within the eastern portion of the city of Del Rio, is one of the most prolific water sources for the region. It produces an average of 58 million gallons per day from the Salmon Peak Limestone member of the Edwards Group and supplies drinking water for the city of Del Rio (USAF 2004a).

Water wells in the county provide small volumes of water compared to the springs and seeps. Water quality in the region is generally good, but variable levels of hardness and salinity have been observed. This is due to dissolved concentrations of calcium or magnesium. South and east of Del Rio, water quality records indicate that the waters in the limestones of the Edwards Group become highly mineralized. The fresh (potable) water and highly mineralized water in these formations are separated by an imaginary line called the “bad water” line. The “bad water” line runs just west and south of San Felipe Springs and encompasses Laughlin AFB (USAF 2004a).

Three water production wells (Air Force Wells YR-70-42-205, 208, and 209) were drilled near the northwest portion of Laughlin AFB in 1942, but the water they produced was too highly mineralized to be potable (USAF 2004a). The base is located approximately 5 miles east-southeast of the city of Del Rio domestic water supply source, San Felipe Springs. Laughlin AFB diverts water from San Felipe Springs for domestic consumption and incidental use throughout the base and for irrigation (USAF 2004a).

Given its isolated location, the Laughlin Southwinds Marina Complex obtains its water from a single well finished in the Salmon Peak Aquifer. Although highly mineralized, water quality is considered to be good and water is treated to drinking water standards on site via chlorination.

3.3.5 Hazardous Materials and Wastes

3.3.5.1 Hazardous Materials

Hazardous materials are those substances defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act and the Toxic Substances Control Act. In general, hazardous materials include substances that, because of their quantity, concentration, physical, chemical, or infectious characteristics, may present substantial danger to public health or welfare or to the environment when released or otherwise improperly managed.

Hazardous materials management at Air Force installations is established primarily by AFI 32-7080, *Pollution Prevention Program*, which incorporates the requirements of all federal regulations, AFIs, and DoD Directives (DoDDs), for the reduction of hazardous material uses and purchases. The primary hazardous materials addressed by AFI 32-7080 are ozone depleting chemicals and the 17 chemicals listed under the USEPA Industrial Toxics Program (USEPA 17 chemicals). EO 12088, *Federal Compliance with Pollution Control Standards*, under the authority of the USEPA, ensures that necessary actions are taken for the prevention, management, and abatement of environmental pollution from hazardous materials or hazardous waste due to federal facility activities.

Laughlin AFB has a Pollution Prevention Management Action Plan that incorporates appropriate management, measurement, and reporting goals to comply with program elements of the Air Force Pollution Prevention Program. The management goals and

objectives of this plan would apply to any hazardous or regulated materials used at the Laughlin Southwinds Marina Complex.

3.3.5.2 Hazardous Waste

The Solid Waste Disposal Act as amended by the RCRA, which was further amended by the Hazardous and Solid Waste Amendments, defines hazardous wastes. RCRA Subtitle C (40 CFR Parts 260 through 270) regulations are administered by the USEPA and are applicable to the management of hazardous waste. Regulatory authority is subsequently delegated by the USEPA to the state of Texas. These regulations require that hazardous waste be handled, stored, transported, disposed, or recycled in compliance with applicable regulations. Laughlin AFB has a Part B RCRA permit for less than 90-day-storage of hazardous or regulated wastes.

Laughlin AFB is registered as a municipal large quantity generator of hazardous waste. Hazardous wastes generated at Laughlin AFB include spent solvents, thinners, strippers, paint waste, laboratory chemicals, and unused materials considered as waste or products containing hazardous waste having exceeded their shelf-life. Used motor oil, turbine oil, and hydraulic fluid are also generated on base and transported to an off-base recycling facility. There are a total of 35 waste accumulation areas and satellite accumulation points on base. Hazardous wastes are transported to the Defense Reutilization and Marketing Office (DRMO) interim storage facility at Building 2026, while used oil and hydraulic fluid is transported separately for recycling. Waste antifreeze and refrigerants are recovered, recycled, and reused in on-base maintenance facilities (USAF 2000).

In CY04, 19,079 pounds of hazardous waste, 28,185 pounds of universal waste (mostly paint and paint related waste), and 17,275 pounds of non-RCRA hazardous waste was generated on Laughlin AFB and transported off base for disposal. An additional 27,580 pound or 3,850 gallons of oil was recycled off base.

3.3.5.3 Installation Restoration Program

The DoD implemented the Installation Restoration Program (IRP) to identify the locations and contents of past toxic and hazardous material disposal and spill sites and to eliminate the hazards to public health in an environmentally responsible manner. The objectives of the IRP are to identify and fully evaluate any areas suspected to be contaminated with hazardous materials caused by past Air Force operations and to eliminate or control any hazards to the public health, welfare, or the environment. The IRP is the basis for response actions on Air Force installations under provisions of CERCLA, and the Superfund Amendments and Reauthorization Act of 1986, as clarified by EO 12580, *Superfund Implementation*.

According to the Laughlin AFB IRP Management Action Plan, revised November 2004, 17 IRP sites and six areas of concern (AOC) on base were identified as potentially contaminated. Figure 3-3 provides a map of those IRP sites and AOCs that may be potentially impacted by the proposed action and alternatives. Table 3-4 presents the current status of the Laughlin AFB IRP sites. There are no IRP sites or AOCs identified at the Laughlin Southwinds Marina Complex.

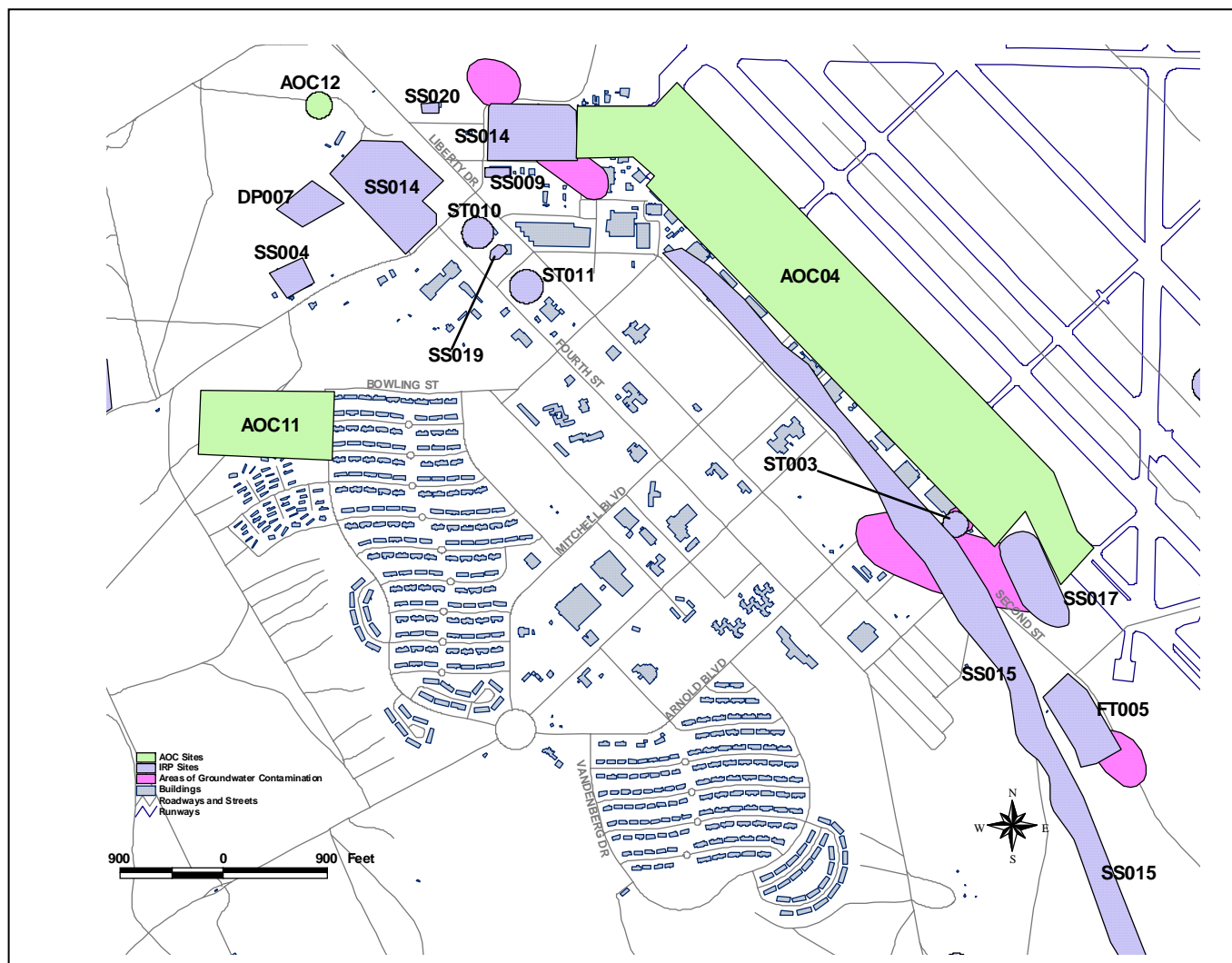


Figure 3-3 IRP and AOC Sites, Laughlin Air Force Base

Number	Description	Site Status
DP007	Sludge Disposal Area	Remedial Investigation being Conducted and Long Term Monitoring
DP008	South Boundary Dike	Closed - No Further Response Action Planned
FT005	Firefighter Training Area	Planned Remedial Actions, Planned Long-Term Monitoring
LF001	Base Landfill	Closed - No Further Response Action Planned
PS018	Building 800 Pesticide Facility	Planned Remedial Investigation
SS004	DRMO	Remedial Investigation being Conducted
SS009	Supply Storage Activity	No Further Response Action Planned (Pending)
SS014	Fuel Receiving and Storage Area	Planned Long-Term Monitoring
SS015	Storm Drainage Ditch	Remedial Investigation being Conducted, Planned Long-Term Monitoring
SS016	MARS Building and Area	Planned Feasibility Study
SS017	Area South of Flightline	Planned Feasibility Study
SS019	Building 116 HVAC Shop	Planned Remedial Investigation
SS020	Jet Engine Test Cells	Planned Remedial Investigation
ST003	Defueling Pit	No Further Response Action Planned (Pending)
ST010	Facility 121 UST	Closed - No Further Response Action Planned
ST011	Facility 126 UST	Closed - No Further Response Action Planned
ST012	Facility 640 USTs	Closed - No Further Response Action Planned
ST013	Facility 660 UST	Closed - No Further Response Action Planned
WP002	Old Industrial Waste Pond	No Further Response Action Planned (Pending)
WP006	New Industrial Waste Pond	No Further Response Action Planned (Pending)
AOC01	Gun Alignment Facility	Site Investigation being Conducted
AOC04	Flightline Apron	Closed - No Further Response Action Planned
AOC11	Former Ordnance Storage Area	No Further Response Action Planned (Pending)
AOC12	Tar Disposal Area	Remedial Action being Conducted
Sources: USAF 2002 and USAF 2004b.		
AOC	Area of Concern	MARS Major Accident Reporting System
DRMO	Defense Reutilization Marketing Organization	UST underground storage tank
HVAV	Heating, Ventilation, and Air Conditioning	

3.3.5.4 Lead-Based Paint and Asbestos

Lead-based paint management at Air Force installations is established in the Air Force policy and guidance on LBP in facilities. The policy incorporates by reference the requirements of 29 CFR 1910.1025, 29 CFR 1926, 40 CFR 50.12, 40 CFR 240 through 280, the CAA, Public Law 102-550, and other applicable federal regulations. This policy requires each installation to develop and implement a facility management plan for identifying, evaluating, managing, and abating LBP hazards.

LBP at Laughlin AFB is managed in accordance with USAF policy (USAF 2000). The use of LBP as architectural coatings declined significantly after restrictions were initiated in 1978. There has not been a comprehensive survey to determine the use of LBP at Laughlin AFB; therefore, it is assumed that all facilities constructed prior to 1980 possibly contain LBP. Hazardous waste disposal records show that 5,480 pounds of LBP waste was disposed of in 1998 (USAF 2000). LBP detection sampling is accomplished prior to renovation or demolition of a facility. Inspection and abatement activities for facilities range from incidental and routine maintenance to full scale abatement in preparation for demolition. If LBP is detected in a building prior to an action and is determined to be a potential hazard or threat, the debris from the demolition or renovation is then disposed of in accordance with applicable federal, state, and local hazardous waste and lead abatement regulations. LBP is managed according to the base's LBP management plan.

The USEPA and OSHA regulate asbestos. Emissions of asbestos to ambient air are controlled under Section 112 of the CAA. Identification of asbestos-containing material (ACM) in base facilities is governed by OSHA under the authority of the Occupational Safety and Health Act, 29 USC §§ 669 et seq. The USEPA has a policy that addresses leaving asbestos in place if its disturbance or removal could pose a health threat.

Asbestos management at Air Force installations is established in AFI 32-1052, *Facility Asbestos Management*. AFI 32-1052 incorporates by reference applicable requirements of 29 CFR 669 et seq., 29 CFR 1910.1025, 29 CFR 1926.58, 40 CFR 61.140, Section 112 of the CAA, and other applicable AFIs and DoDDs. AFI 32-1052 requires installations to develop an asbestos management plan for the purposes of maintaining a permanent record of the current status and condition of all ACM in the installation facility inventory and documenting all asbestos management efforts. In addition, the instruction requires installations to develop an asbestos operations plan that details how the installation will conduct asbestos-related projects.

A base-wide survey of buildings completed in CY93 identified 95 percent of the building and facilities on Laughlin AFB were built with ACM. Asbestos at Laughlin AFB is managed in accordance with the installation's Asbestos Operating and Management Plan. This plan specifies procedures for the removal, encapsulation, enclosure, and repair activities associated with ACM abatement projects and is designed to protect personnel who live and work on Laughlin AFB from exposure to airborne asbestos fibers as well as

to ensure that Laughlin AFB remains in compliance with all federal, state, and local regulations pertaining to asbestos (USAF 2000).

3.3.6 Biological Resources

3.3.6.1 Vegetation

Val Verde County lies at the crossroads of three Texas ecoregions: the Tamaulipan ecoregion, Chihuahuan Desert, and the Edwards Plateau. The Tamaulipan ecoregion is part of the Texas Coastal Plain and as such consists primarily of shrubs and small acacia trees. The Chihuahuan Desert also known as the Big Bend Region consists primarily of yuccas, cactuses, and creosote. The Edwards Plateau ecoregion consists mainly of juniper trees and scrub oak. The three ecoregions come together in the area around Lake Amistad with the Chihuahuan Desert along the western side of the lake, the Edwards Plateau along the northern side, and the Tamaulipan Chaparral along the eastern edge of the lake (NPS 2005).

The Laughlin Southwinds Marina Complex is located along the eastern side of Lake Amistad in the Tamaulipan Chaparral ecoregion. As such, the vegetation surrounding the recreational area is consistent with those communities associated with that ecoregion. These typical communities include such vegetation as mesquite (*Prosopis glandulosa*), chaparro (*Zizyphus obtusifolia*), jasmincillo (*Aloysia gratissima*), prickly pear (*Opuntia lindheimeri*), common bee-bush or white bush (*Aloysia wrightii*), and various species of acacia (including *Acacia smallii* and *A. tortuosa*) (WWF 2005).

Laughlin AFB lies in the Tamaulipan Chaparral ecoregion. Areas of native vegetation are consistent with those describe in the previous section. The vegetation present in landscaped and developed areas reflects water conservation efforts and consists of xeriscape plants.

3.3.6.2 Wildlife

The wildlife associated with the Tamaulipan Chaparral ecoregion consists primarily of those species that inhabit mesquite-brush land communities described in the previous sections. These species include the ocelot (*Leopardus pardalis*), jaguarundi (*Herpailurus yagouaroundi*), reddish egret (*Egretta refescens*), Texas indigo snake (*Drymarchon corais erebennus*), southern plains woodrat (*Neotoma micropus*), Mexican spiny pocket mouse (*Liomys irroratus*), and the Mexican prairie dog (*Cynomys mexicanus*). The southern part of the ecoregion is also classified as an Endemic Bird Area. This area is thought to be a restricted-range for several species including the green-cheeked amazon (*Amazona viridigenalis*), crimson-collared grosbeak (*Rhodothaupis celaeno*), Altmira yellowthroat (*Geothlypis flavovelata*) and Tamaulipas crow (*Corvus imparatus*) (WWF 2005).

Approximately 25 percent of Laughlin AFB is considered to be a developed urban area (USAF 2004). The remaining 75 percent of the installation is considered to be unimproved or semi-improved and reflects, in part, the surrounding Tamaulipan Chaparral ecoregion. As such, any wildlife present on the installation would be consistent with the surrounding ecoregion. However, due to the presence of the urban activities, it is expected that these species would be either adapted to the urban setting or transient in nature.

3.3.6.3 Threatened and Endangered Species

The Endangered Species Act provides protection for those species formally designated by the United States Fish and Wildlife Service (USFWS) as a candidate for listing based on the danger of extinction that species faces as a consequence of economic growth and development without adequate concern and conservation. Depending on the degree of threat the species faces, the USFWS will assign a classification to the species of either threatened or endangered. A species that is “endangered” is one that is in danger of becoming extinct throughout all or part of its region; whereas, a species that is “threatened” is one that is likely to become endangered in the near future. USFWS may recognize other possible candidate species, or remove or “delist” species that have successfully recovered in all or part of their regions.

Several endangered and threatened species have been previously observed in Val Verde County. Table 3-5 provides a list of those species as well as their classifications. Some species associated with the Tamaulipan Chaparral ecoregion have been classified on the state and federal lists and have not been documented in Val Verde County.

3.3.6.4 Wetlands

Four federal agencies are responsible for identifying and regulating wetlands: the United States Army Corps of Engineers (USACE), the USEPA, the USFWS, and the Natural Resource Conservation Service. The USACE and USEPA are primarily responsible for making jurisdictional determinations and regulating wetlands under Section 404 of the Clean Water Act (CWA). The USACE also makes jurisdictional determinations under Section 10 of the Rivers and Harbors Act of 1899. The Natural Resource Conservation Service has developed procedures for identifying wetlands for compliance with the Flood Security Act of 1985, and the USFWS has developed a classification system for identifying wetlands. The protection of wetlands is also mandated under EO 11990.

Wetlands have not been formally delineated at Laughlin AFB. However, potential wetland areas have been identified during previous studies. Potential wetlands are generally located along the base perimeter in underdeveloped areas of the base outside the project areas (USAF 2004a).

Table 3-5 Threatened and Endangered Species in Val Verde County, Texas

Name	State Classification	Federal Classification
Plants		
Texas Snowbell (<i>Styrax platanifolius</i> spp <i>taxanus</i>)	Endangered	Endangered
Tobusch Fishhook (<i>Sclerocactus brevihamatus</i> ssp <i>tobuschii</i>)	Endangered	Endangered
Birds		
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	Threatened	Threatened – proposed for delisting
Arctic Peregrine Falcon (<i>Falco peregrinus tundrius</i>)	Threatened	---
Black-Capped Vireo (<i>Vireo atricapillus</i>)	Endangered	Endangered
Interior Least Tern (<i>Sterna antillarum athalassos</i>)	Endangered	Endangered
Reptiles		
Texas Horned Lizard (<i>Phrynosoma cornutum</i>)	Threatened	---
Texas Indigo Snake (<i>Drymarchon corais</i>)	Threatened	---
Texas Tortoise (<i>Gopherus berlandieri</i>)	Threatened	---
Sources: TPWD 2005.		

There are no delineated wetlands at the Laughlin Southwinds Marina Complex.

3.3.6.5 Floodplains

EO 11988, *Floodplain Management*, May 24, 1977, states that federal agencies “... shall provide leadership and shall take action to reduce the risk of flood loss, to minimize the impact of floods on human safety, health and welfare, and to restore and preserve the natural and beneficial values served by floodplains.” The EO requires that an agency shall avoid undertaking or providing assistance for new construction located in floodplains, and that if the head of the agency finds that there is no practicable alternative to such construction, the proposed action must include all practicable measures to minimize harm to floodplains, which may result from such use.

The National Flood Insurance Program, administered by the Federal Emergency Management Agency, was created in 1968 to provide flood insurance to people who live in areas with the greatest risk of flooding, called special flood hazard areas (SFHAs).

Generally, the SFHAs are those portions of participating communities within the 100-year floodplain.

There are four areas defined by the 100-year floodplain on Laughlin AFB. These areas are generally located along the base perimeter in underdeveloped portions of the base outside the project areas.

Lake Amistad is a man-made lake built as a flood control measure for the region. The normal conservation elevation of Lake Amistad is at 1,117 feet above mean sea level. The spillway of the dam structure sits at 1,140.4 feet above sea level. During maximum flood conditions the elevation of the lake pool can reach a maximum height of 1,145.1 feet above sea level (NOAA 2005). All of the existing facilities at the Laughlin Southwinds Marina Complex, with the exception of the dock system and boat ramp, are located at elevations that range from 1,150 feet to 1,160 feet above sea level. Given the maximum flood elevation of 1,145.1 feet above sea level, all of the existing structures are above the maximum flood elevation of the lake.

3.3.7 Utilities and Infrastructure

Resources discussed in this section include transportation facilities on Laughlin AFB and the local utility services. The Region of Influence (ROI) for these resources is limited to the immediate vicinity of the multiple construction sites on the installation.

3.3.7.1 Stormwater Drainage

The Laughlin AFB stormwater management system predominately consists of open ditches and swales. The system adequately supports the limited rainfall received at the base. Laughlin AFB was issued its stormwater general permit on March 5, 2003. The new permit was issued by TCEQ under the Texas Pollutant Discharge Elimination System (TPDES). The new permit will replace both the old Texas State Permit No. 12651-001 and the old National Pollutant Discharge Elimination System (NPDES) Permit No. TX0022608. The new TPDES General Industrial Stormwater Permit number is TXR150000 and will expire March 5, 2008 (TCEQ 2003).

No permanent streams exist on the base. Five basins receive surface water across Laughlin AFB: 1) northwestern, 2) southwestern, 3) central/western, 4) eastern, and 5) the runway area. The north and northwest portion of the base drains to Zorro Creek, which flows intermittently across the northwest corner of Laughlin AFB. Zorro Creek discharges to the Rio Grande River, approximately 11.5 miles south to southwest of the base (USAF 2004a).

Surface water from the southwestern portion of the base flows into an unnamed tributary that discharges to the Rio Grande River approximately eight miles south of Laughlin AFB (USAF 2004a).

There is an improved trench in the central portion of the base, which receives surface water from the industrial and the flightline areas via a subsurface drainage system. The

trench reaches the southern base boundary near the wastewater treatment ponds and discharges to a creek that travels approximately four miles before discharging to Sacatosa Creek (USAF 2004a).

Surface water runoff from the eastern portion of the base flows toward an improved ditch via several unnamed surfaced channels on the eastern side of Laughlin AFB and discharges to Sacatosa Creek. Sacatosa Creek flows intermittently from north to south before discharging to Sycamore Creek, approximately 11 miles south of the base. Sycamore Creek then travels approximately one mile to the Rio Grande River (USAF 2004a).

Surface water runoff from the runways and tarmac enters a subsurface stormwater drainage system. The stormwater is released to the Storm Water Drainage Ditch, IRP Site SS015, and to the ground surface on the east side of the base where it also flows to Sacatosa Creek (USAF 2004a).

Surface water runoff during storm events at the Laughlin Southwinds Marina Complex flows naturally into Lake Amistad. There is no stormwater collection system at the marina complex.

3.3.7.2 Solid Waste Management

Municipal solid waste management and compliance at Air Force installations are established in AFI 32-7042, *Solid and Hazardous Waste Compliance*. AFI 32-7042 incorporates by reference the requirements of RCRA Subtitle D, 40 CFR 240 through 244, 257, and 258, and all other applicable federal regulations, AFIs, and DoD directives. In general, AFI 32-7042 establishes the requirement for installations to have a solid waste management program that incorporates the following: a solid waste management plan; procedures for handling, storage, collection, and disposal of solid waste; record keeping and reporting; and recycling of solid waste, as addressed in AFI 32-7080, *Pollution Prevention Program*.

Municipal solid waste at Laughlin AFB is managed in accordance with the guidelines specified in AFI 32-7042, *Solid and Hazardous Waste Compliance*. In CY04, Laughlin AFB and Laughlin Southwinds Marina Complex together disposed of 1,421.37 tons of municipal solid waste. Additionally during CY04, the facilities composted 271.43 tons of waste and recycled 474.12 tons of material. The municipal solid waste was disposed of in a landfill facility owned by the city of Del Rio. In 2002, the city of Del Rio landfill collected 48,645 tons of waste. It was determined at that time, based on the 2002 volume of waste collected and compacted, that the remaining capacity of the landfill was 647,234 tons. It is estimated that the remaining life expectancy of the landfill would be approximately 13 years (TCEQ 2002).

3.3.7.3 Transportation

Laughlin AFB has excellent access to the regional transportation network of highways. US Highway 90, connecting Laughlin AFB with Del Rio to the west and

Uvalde 60 miles to the east, borders the north side of the base. US Highway 277, connecting Del Rio to Eagle Pass to the south, is southwest of the base.

With few exceptions, the transportation system at Laughlin AFB generally operates well. Two gates serve as access points to and from the local highway system: the Main Gate at Liberty Drive and Highway 90 and the gate at Laughlin Drive which connects to US 277. The Laughlin Drive gate is not heavily used due to limited hours of use. An August 1988 Texas Department of Transportation study estimated that approximately 6,400 vehicles per work day entered and exited Laughlin AFB from US Highway 90. Base officials estimate that 60 percent of the traffic occurs during the peak traffic hours of 7:00 to 9:00 am and 3:30 to 5:30 pm, 20 percent between 11:00 to 1:00 pm, and 20 percent at other times (USAF 2000).

Traffic at the main gate intersection with Highway 90 slows during morning commute hours and during identification checks. On-base traffic flows well with only minor congestion occurring during rush hours. Vehicle parking is adequate for most areas. Parking space shortages are most likely to occur in the areas near the aircraft maintenance functions and flying training squadrons (USAF 2000).

Laughlin Southwinds Marina Complex can be accessed via US Highway 90 to Spur 349. From Spur 349, the complex is accessed via the Marina Access Road. Both US Highway 90 and Spur 349 provide multiple lane access, while Marina Access Road provides single lane access.

3.3.7.4 Electricity and Natural Gas

Laughlin AFB is supplied with electricity by two 12-megawatt feeder lines from Central Power and Light Company, a subsidiary of Central and Southwest Corporation. Power enters the base from the Hamilton Road substation located about 2 miles west of the base. The substation has a capacity of 15.9 megawatt hours and consists of two transformers with one being dedicated to Laughlin AFB. If required, the power company can also dedicate 80 percent of the second transformer for the base to meet future requirements (USAF 2000). In 2004, the base used 42,809,345 kilowatt-hours (kWh) (117,286 kWh per day) of electricity; Laughlin Southwinds Marina Complex used 279,709 kWh (766 kWh per day) of electricity.

Laughlin AFB receives natural gas service from PG&E-Reata via one 6 inch, steel delivery pipeline operating at 60 pounds per square inch gauge pressure (psig) to the base's only regulator station, near the golf course. Approximately half of the existing steel gas pipe system was replaced in 1994 with polyethylene piping. The system operates at 16 psig in the summer and 19 psig in the winter and is adequately sized with significant amounts of excess capacity (USAF 2000). In 2004, Laughlin AFB consumed approximately 59,614,000 cubic feet of natural gas. There is no natural gas consumption at Laughlin Southwinds Marina Complex.

3.3.7.5 Sanitary Sewer

In 2004, Laughlin AFB generated approximately 82,313,000 gallons of waste water. Waste water is collected and treated on Laughlin AFB via a natural lagoon system. The lagoon system uses natural bacteria to biodegrade the wastes until the water reaches the discharge limits defined in the installation's TPDES permit (TPDES Permit Number 12651-00). The water is then discharged into an unnamed tributary of Sacatosa Creek (USAF 2000).

Sanitary waste generated at the Laughlin Southwinds Marina Complex are collected and treated via a septic system. The evapotranspiration field for the system is approximately 150 feet by 154 feet and handles all of the sanitary wastes generated at the facility.

3.3.7.6 Potable Water

Laughlin AFB diverts water from San Felipe Springs for domestic consumption and incidental use throughout the base and for irrigation. The installation uses three storage tanks totaling 1.4 million gallons in capacity to meet Laughlin AFB potable water demand. In 2004, Laughlin AFB consumed approximately 227,287,000 gallons of potable water.

The Laughlin Southwinds Marina Complex obtains its potable water from the Salmon Peak Aquifer. The potable water system uses a single well to withdraw the water and a 25,000-gallon storage tank once the water has been treated via chlorination to drinking water standards. The marina consumed 293,000 gallons of potable water in 2004.

3.3.8 Socioeconomics

Laughlin AFB generates economic activity within Val Verde County through employee payrolls, local procurements, and other expenditures. The surrounding communities and Laughlin AFB depend on one another for employment, goods, and services. With a total of approximately 3,400 employees (military and civilian), Laughlin AFB is the largest employer in the Del Rio area. Approximately 1,750 people are employed by other federal agencies (USAF 2003).

The 2003 estimated population of Val Verde County is 46,569. This is a 3.8 percent increase from the 2000 population of 44,856 for the county. In 2000, 75.5 percent of the population of Val Verde County or 33,867 people lived in the city of Del Rio. Of these 44,856 people living in Val Verde County in 2000, 75.5 percent were of Hispanic or Latino origin, 21.7 percent were of white/non-Hispanic origin, 1.5 percent were of African-American origin, 0.7 were of American Indian/Alaska Native origin, and 0.6 percent were of Asian origin (USCB 2005).

The average household income in 1999 for Val Verde County was \$28,376 with approximately 26.1 percent of those individuals living below the poverty level. The number of households in the county in 2000 was 14,151 with an average of 3.11 people

per household. The homeownership rate in 2000 for Val Verde County was 66 percent with the average home valued at \$58,600 (USCB 2005).

CHAPTER 4

ENVIRONMENTAL CONSEQUENCES

4.1 INTRODUCTION

This chapter describes potential impacts that could occur if the proposed action or alternative is implemented at Laughlin AFB. Additionally, potential impacts are addressed for the no-action alternative and cumulative impacts are analyzed for the additional actions proposed at Laughlin AFB. Any resultant irreversible or irretrievable resource commitments are noted. Significance criteria used to evaluate potential impacts are discussed at the beginning of each resource area. Increased aircraft operations and personnel authorizations are not a part of the proposed or alternative actions.

4.2 CHANGE IN CURRENT MISSION

The primary missions of Laughlin AFB would continue; however, implementation of the proposed action would allow Laughlin AFB to more effectively meet mission requirements.

4.3 DESCRIPTION OF THE EFFECTS OF ALL ALTERNATIVES ON THE AFFECTED ENVIRONMENT

4.3.1 Noise

In evaluating noise impacts, several items were examined, including: 1) the degree to which noise levels generated by construction and demolition activities were higher than the ambient noise levels, 2) the degree to which there is annoyance and/or activity interference, and 3) the proximity of noise-sensitive receptors to the noise source.

The primary means of assessing environmental noise is through computer simulations since direct measurement of noise levels is often impractical, expensive, and inconclusive. Unlike a topographic contour, noise contours are not intended to be precise representations of the noise zones. Geographic features, meteorology, the receiver's perception of the source, etc., can influence the impact of noise. Noise contours do not clearly divide noise zones with one side of the line compatible and the other side incompatible. However, the use of noise contour maps has proven to be a reliable planning tool in noise-affected areas.

4.3.1.1 Proposed Action

Vehicles and equipment involved in demolition, facility construction, and finishing work would generate the primary noise from the proposed action. The typical noise levels generated by these activities range from 75 to 89 dBA at 50 feet from the source. Assuming that noise from the heavy equipment radiates equally in all directions, the sound intensity diminishes inversely as the square of the distance from the source. Therefore, in a free field (no reflections of sound), the L_p decreases 6 dB with each doubling of the

distance from the source. Under most conditions, reflected sound will reduce the attenuation due to distance. Therefore, doubling the distance may only result in a decrease of 4 to 5 dB (AIHA 1986). Table 4-1 shows the anticipated sound pressure levels at a distance of 50 feet for miscellaneous heavy equipment. Construction noise would be intermittent and short-term in duration. The distance to off-base sensitive receptors in the vicinity of the short-term construction activities would be greater than 1,000 feet. Assuming a maximum noise level of 89 dBA measured 50 feet from the source, the distances from each of the project areas to off-base sensitive receptors would be sufficient to allow noise levels to naturally attenuate to levels within existing conditions at the installation.

Table 4-1 Heavy Equipment Noise Levels at 50 Feet

Equipment Type ^a	Number Used ^a	Generated Noise Levels, L _p (dBA) ^b
Bulldozer	1	88
Backhoe (rubber tire)	1	80
Front Loader (rubber tire)	1	80
Dump Truck	1	75
Concrete Truck	1	75
Concrete Finisher	1	80
Crane	1	75
Flat-bed Truck (18 Wheel)	1	75
Scraper	1	89
Trenching Machine	1	85
^a Estimated ^b Source: CERL 1978 dBA – A-weighted sound level, measured in decibels L _p – sound pressure level		

Construction activities would be expected to occur between 7:30 a.m. and 4:30 p.m. Noise levels in the vicinity of the residences associated with the construction activities on Laughlin AFB would be masked by the noise levels from flying activities at the installation. Minor annoyances to on-base sensitive receptors in the vicinity of the project sites from the demolition and construction activities would be of short duration and occur during daylight hours (Figure 4-1). No changes in aircraft operations are anticipated from implementation of the proposed action.

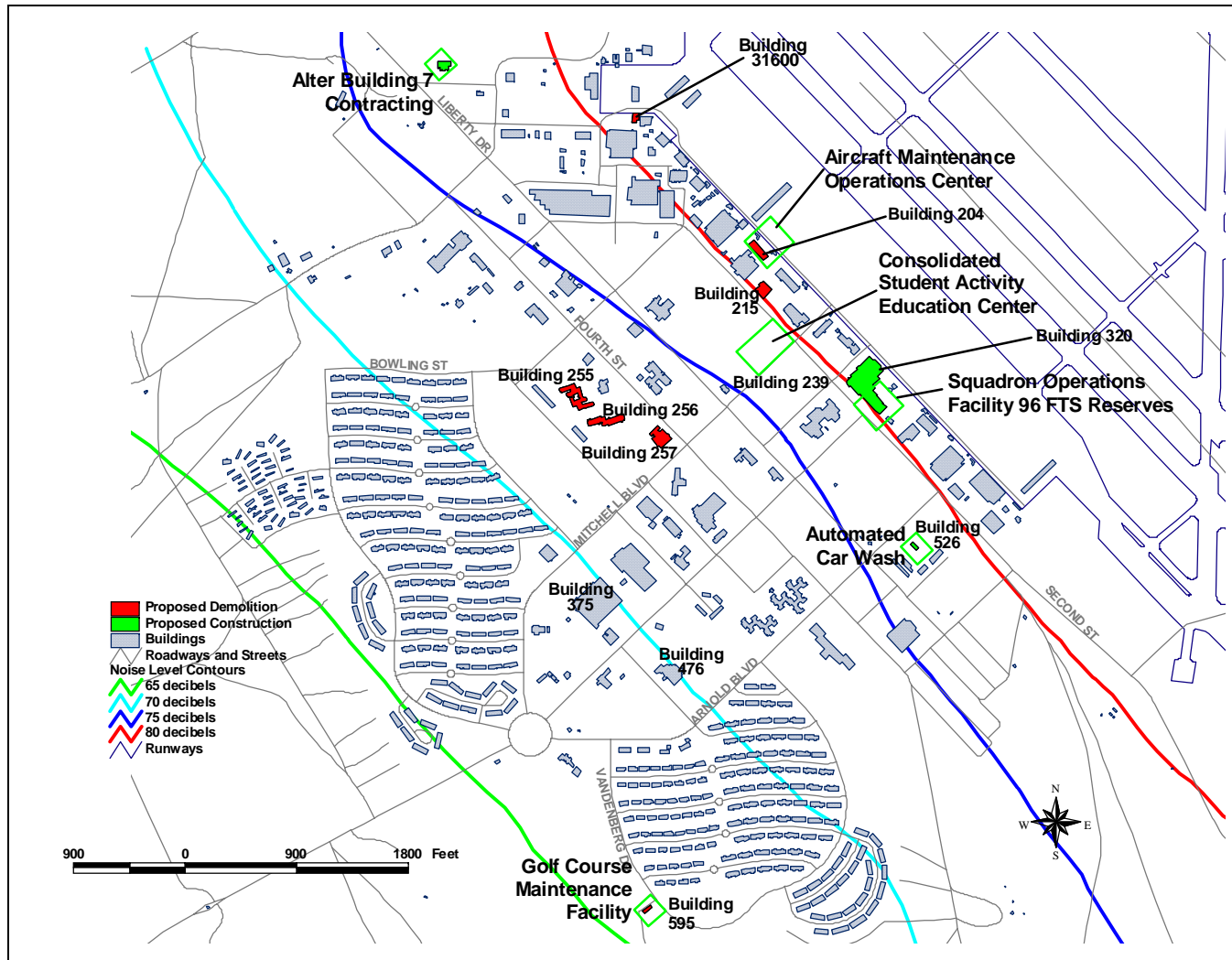


Figure 4-1 Baseline Noise Contours and Proposed Action, Laughlin Air Force Base

As with the proposed construction and demolition activities on Laughlin AFB, noise would be generated as a result of the proposed action at the Laughlin Southwinds Marina Complex. All of the parameters associated with the heavy equipment and natural attenuation of noise with distance from that equipment would also apply to the marina complex as discussed for the proposed action on Laughlin AFB. Additionally, as with the proposed action on Laughlin AFB the construction and demolition activities at the marina complex would occur between the hours of 7:30 a.m. and 4:30 p.m. and would be temporary in nature. As discussed in Section 3.3.1.2 the marina complex experiences noise from automobiles, as well as boats. These noise levels can fluctuate depending on the seasonal variations and use of marina facilities. Additionally there is an active rail line adjacent to the site that contributes to area noise levels. Given the temporary nature of the proposed noise levels, the daytime operations of the activities, and the existing noise levels in the area, the potential short-term noise impacts would be minor as a result of the proposed action at the Laughlin Southwinds Marina Complex.

During peak seasons marina managers operate various facilities at the complex at full capacity. The volume of visitors to the site often exceeds the accommodations of the complex. The proposed action was developed, therefore, to meet the demand of the current users of the recreational facilities. The noise levels would not increase significantly with regards to the proposed action. Therefore, there would be no significant long-term noise impacts associated with the proposed action.

4.3.1.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.1.3 No-Action Alternative

Under the no-action alternative, there would be no change from the baseline conditions described in Section 3.3.1.

4.3.1.4 Cumulative Impacts

The projects discussed in Sections 2.7 are similar in scope and scale to those defined in the proposed action. As with the proposed projects, the projects discussed in Section 2.7 would occur at various times over a one to five year period of time. Given the heavy equipment parameters discussed in Section 4.3.1.1, natural attenuation factors, distances from on-base sensitive receptors of greater than 800 feet, and various time schedules of each project, no cumulative noise impacts would be expected as a result of the implementation of the proposed action and other actions.

4.3.1.5 Mitigative Actions

Existing baseline noise levels at Laughlin AFB would not be increased from the implementation of the proposed action. Noise levels would be temporarily increased from

the demolition and construction projects. However, mitigation measures would not be required for the proposed action.

In addition, noise-generating construction equipment at the project site should be equipped with the manufacturer's standard noise control devices (i.e., mufflers, baffling, and/or engine enclosures). All equipment should be properly maintained to assure that no additional noise from worn or improperly maintained equipment parts is generated. Occupational exposure to noise from construction equipment could be reduced by requiring construction workers to wear appropriate hearing protection, and hearing protective devices such as ear plugs or ear muffs should be worn at all locations where workers may be exposed to high noise levels.

4.3.2 Air Quality

As defined in 40 CFR 52.21, the proposed action or alternative action would be considered a major source of emissions if total emissions of any pollutant subject to regulation under the CAA are greater than the major source threshold of 250 tpy for attainment and unclassified areas. Sources emitting less than the major source threshold for attainment and unclassified areas would not be considered major and would generally be considered regionally insignificant.

4.3.2.1 Proposed Action

The projects under the proposed action would generate primarily heavy equipment emissions and fugitive dust emissions from demolition and construction activities. The following paragraphs detail the assumptions used in calculating emissions and describe the impacts of the emissions.

Fugitive dust emissions for the proposed demolition activities would be generated primarily from building dismemberment, debris loading, and debris hauling. An emission factor of 0.0073 pounds of PM₁₀ per square foot of demolished floor area was developed based on USEPA-approved methodologies for demolition of structures constructed primarily of wood (Murphy and Chatterjee 1976). This factor was used to calculate annual fugitive dust emissions for the demolition projects given the total area of the buildings. Calculation of fugitive dust emissions for the proposed action is presented in Appendix A.

Exhaust emissions would be generated by equipment during construction of proposed projects. Specific information describing the length of operation, daily mileage, or specific usage of heavy construction equipment varies from project to project. Based on the type of equipment and duration of use, the USEPA has established factors for the emission of criteria air pollutants by heavy equipment used for construction activities (USEPA 1985). The type of equipment and hours of operation for the proposed construction activities were estimated based on anticipated project requirements and established usage factors for construction equipment (Means 1997a and Means 1997b). Calculation of heavy equipment emissions for the proposed action is presented in Appendix A.

Table 4-2 summarizes the estimated pollutant emissions associated with the proposed action. Each project under the proposed action would generate one-time emissions which may or may not occur simultaneously with emissions from other proposed action projects depending on the scheduling of the projects. Totals presented in Table 4-2 represent the total one-time emissions over the entire course of the proposed projects. Recurring (long-term) emissions are not anticipated as a result of the implementation of the proposed action.

Table 4-2 Estimated Increase in Pollutant Emissions at Laughlin AFB

Emissions Source	Pollutant Emissions (tons)					
	CO	VOCs	NO _x	SO _x	PM ₁₀	Lead
Heavy Equipment Emissions	7.89	1.70	19.71	2.11	1.33	--
Fugitive Dust Emissions (Demolition)	--	--	--	--	0.37	--
Fugitive Dust Emissions (Construction)	--	--	--	--	1.02	--
Total Estimated Emissions^a	7.86	1.70	19.71	2.11	2.72	0.00
Base Emissions ^b	19.72	9.28	6.66	0.56	1.44	NR
Permitted Emissions ^b	99.00	83.63	44.00	9.50	22.52	NR
Projected Emissions^c	27.61	10.98	26.37	2.67	4.16	0.00
^a Emissions from each proposed project would be one-time emissions that may or may not occur simultaneously with emissions from other proposed projects depending on the scheduling of the projects. Totals represent the total one-time emissions from all construction projects. ^b Estimated from Air Emission Report 1/1/2003 through 12/31/2003 Command Core System ^c Increase assumes emissions from all projects would occur simultaneously. CO – carbon monoxide VOC – volatile organic compound NO _x – nitrogen oxide PM ₁₀ – particulate matter equal to or less than 10 microns in diameter NR – not reported SO _x – sulfur oxide						

To assess maximum potential impact from the projects, the estimated increases from current base emissions assume that emissions from the projects would occur simultaneously. As shown, the maximum increase in emissions for any pollutant as compared to Laughlin AFBs emissions would be an increase of about 18 tons for NO_x. Emissions of all pollutants under the proposed action would be less than 250 tpy; therefore, the proposed action would not be considered regionally significant. All projects under the proposed action are considered temporary activities and would not be expected to cause long-term impacts to local or regional baseline air quality. The primary short-term air quality impacts resulting from these projects at Laughlin AFB would be a temporary increase of air pollutants, which would cease as soon as the projects were completed. In addition, emissions would be well below established permit limitations for each criteria pollutant.

Fugitive dust emissions from ground disturbing activities would be minimized and kept under proper control. Control measures are further discussed in Section 4.3.2.5. The use of dust control measures, the most common being wet suppression with potable water, as part of best management practices at the construction sites would be expected to reduce PM₁₀ emissions from the levels presented in Table 4-2 and control visible particulate emissions at the sites. Actual reduction quantities would vary depending on a variety of factors including frequency of water application, site traffic levels, wind speed and direction, and soil type, among others.

4.3.2.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.2.3 No-Action Alternative

Under the no-action alternative, the proposed projects would not occur. As a result, emissions would not occur and air quality would not be affected.

4.3.2.4 Cumulative Impacts

Increases of criteria pollutants are not cumulatively expected to increase under the proposed action. All projects are not expected to result in long-term (operational) emissions. Operating procedures, which may further decrease air impacts, are detailed in Section 4.3.2.5.

Short-term cumulative impacts would be expected under the proposed action at Laughlin AFB. Using the criteria established in 4.3.2.1, Table 4-3 identifies the estimated pollutant emissions associated with the proposed action.

To assess maximum potential impact from the projects, the estimated increases from current base emissions assume that emissions from the projects would occur simultaneously. As shown, the maximum increase in emissions for any pollutant as compared to Laughlin AFBs emissions would be an increase of about 38 tons for NO_x. Emissions of all pollutants under the proposed action would be less than 250 tpy; therefore, the proposed action would not be considered regionally significant. In addition, the resulting cumulative emissions would be below the permitted emissions of Laughlin AFB.

4.3.2.5 Mitigative Actions

Potential, short-term impacts from site clearing activities and corresponding emissions of PM₁₀ would be minimized and kept under control in accordance with federal, state, and local guidelines (where applicable) for reduction of fugitive dust emissions. These control measures may include, but are not limited to: periodic watering of construction sites and disturbed areas, reduction of vehicle speeds, covering of dirt and aggregate trucks and/or piles, prevention of dirt carryover to paved roads, and construction of erosion barriers and wind breaks.

Table 4-3 Estimated Increase in Pollutant Emissions at Laughlin AFB, Cumulative Impacts

Emissions Source	Pollutant Emissions (tons)					
	CO	VOCs	NO _x	SO _x	PM ₁₀	Lead
Proposed Action	7.86	1.70	19.71	2.11	2.72	--
Other actions within ROI	5.67	0.87	11.73	1.24	9.10	--
Total Estimated Emissions^a	13.53	2.57	31.44	3.35	11.82	0.00
Base Emissions ^b	19.72	9.28	6.66	0.56	1.44	NR
Projected Emissions^c	33.25	11.85	38.1	3.91	13.26	0.00
Permitted Emissions ^b	99.00	83.63	44.00	9.50	22.52	NR
^a Emissions from each proposed project would be one-time emissions that may or may not occur simultaneously with emissions from other proposed projects depending on the scheduling of the projects. Totals represent the total one-time emissions from all construction projects. ^b Estimated from Air Emission Report 1/1/2003 through 12/31/2003 Command Core System ^c Increase assumes emissions from all projects would occur simultaneously. CO – carbon monoxide VOC – volatile organic compound NO _x – nitrogen oxide PM ₁₀ – particulate matter equal to or less than 10 microns in diameter NR – not reported SO _x – sulfur oxide						

4.3.3 Earth Resources

In evaluating impacts on earth resources, several items were examined, including 1) the degree to which the proposed action and alternatives could potentially disrupt the ground surface and destroy the soil profile through excavation and removal of rock and soil in the construction of facilities and 2) the degree to which the proposed action and alternatives could potentially increase erosion caused by the disturbance of the ground surface during the construction and demolition of facilities.

4.3.3.1 Proposed Action

The proposed demolition and construction projects at Laughlin AFB and the Laughlin Southwinds Marina Complex would require soil disturbances, typical of these activities. Construction projects would be located in previously disturbed areas. Impacts to earth resources would be minimized by use of standard engineering practices (e.g., application of water for dust control) that reduce wind or runoff erosion.

4.3.3.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.3.3 No-Action Alternative

Under the no-action alternative, soil disturbances would not occur. Therefore, there would be no change from the baseline conditions described in Section 3.3.3.

4.3.3.4 Cumulative Impacts

Demolition and construction of facilities anticipated under the proposed action or alternative would not involve extensive modification of surface features. Potential cumulative impacts to soils would include increased soil erosion during the construction periods. However, these cumulative impacts would be minimized by use of standard engineering practices (e.g., application of water for dust control) that reduce wind or runoff erosion.

4.3.3.5 Mitigative Actions

Only minor soil erosion from wind and stormwater runoff would be expected during construction activities. Accepted containment procedures, including adequate watering, would be implemented during the construction phases to minimize sediment runoff from the disturbed area. Therefore, given the current conditions and the proposed plans and actions, no mitigation measures are required.

4.3.4 Water Resources

In evaluating impacts on water resources, several items were considered, including: 1) the degree to which the proposed action and alternatives change impermeable surface areas, 2) the degree to which the proposed action and alternatives degrade surface water quality, and 3) the degree to which the potential decline in groundwater levels results in a substantial depletion of water resources.

4.3.4.1 Surface Water

4.3.4.1.1 Proposed Action

As detailed in Table 4-4, there would be a loss of 1.08 acres of impervious (impenetrable) cover on Laughlin AFB as a result of the proposed action. This would equate to a decrease in stormwater runoff during peak flow conditions. There would be an increase in impervious cover at the Laughlin Southwinds Marina Complex of 6.62 acres as part of the proposed action, as indicated on Table 4-5. This additional impervious cover could result in an increase in stormwater runoff leaving the marina during a 25 year peak flow storm event of approximately 34.4 cubic feet per second (cfs). This is assuming a 10 minute collection time, using a runoff coefficient of 0.95 for hardened surfaces and 0.30 for undeveloped surfaces, as defined by the Rational Method. This increased stormwater would flow naturally into Lake Amistad. The monthly average outflow rate of water from Lake Amistad is 2,400 cfs. The increased amount due to the proposed action would be less than 1.5 percent of the average outflow. The design flow for the lake's outfalls would still be significantly greater than the average rate. The lake's capacity is approximately 3.4 million acre-feet (USAF 2000).

Table 4-4 Summary of Impervious Cover Impacts, Proposed Action at Laughlin AFB

Project	Area Demolished (Acres)	Area Constructed (Acres)
Aircraft Operations Maintenance Center	---	0.49
Building 204	0.22	---
Building 215	0.04	---
Squadron Operations Facility for 96 FTS Reserves	---	0.08
Consolidated Student Activity Education Center	---	0.41
Building 257	0.32	---
Golf Course Maintenance Facility	---	0.13
Building 595	0.03	---
Automated Car Wash	---	0.11
Alter Building 7 Contracting	---	0.02
Additional Demolition Projects	---	---
Building 255	0.96	---
Building 256	0.70	---
Building 31600	0.05	---
Area Totals	2.32	1.24
TOTAL GAIN (LOSS):	(1.08)	
Source: Calculated from project descriptions.		
FTS Flying Training Squadron AFB Air Force Base		

Table 4-5 Summary of Impervious Cover Impacts, Proposed Actions at Laughlin Southwinds Marina Complex

Project	Area Demolished Acres	Area Constructed Acres
Maintenance Building/Boat Repair Facility	0.04	0.09
Recreational Center	0.03	0.09
Covered Boat Storage for 30 Boats	---	0.21
Cabin Sites (10 each)	0.02	0.05
Concrete Tent Pads (8 each) with 6 Gazebos		0.03
Laundry/Shower/Restrooms Facility	---	0.02
Additional Roadways and Parking for Cabins and Tent Sites	---	0.84
Covers for the existing 15 Recreation Vehicle Sites	---	---
Recreational Vehicle Sites (10 each) and Roadway	---	0.55
Marina Parking Expansion	---	3.44
Relocation of Petroleum Gas Tank and Secondary Containment Pad	---	0.01
Reconstruction of Marina Dock System	---	---
Reconstruction of Breakwater	---	---
Evapotranspiration Fields	---	1.38
Pump Stations	---	0.01
TOTAL	0.09	6.72
TOTAL GAIN (LOSS):	6.63	

4.3.4.1.2 Laughlin Southwinds Marina Complex Alternative Siting

Under the alternative siting at Laughlin Southwinds Marina Complex there would be an increase of impervious cover of 6.95 acres, as indicated on Table 4-6. The difference is due to the additional road requirements associated with the project. This additional cover could result in an increase in the amount of stormwater runoff of approximated 36.1 cfs during peak flow conditions. As with the proposed action, the stormwater would flow naturally into Lake Amistad from the marina.

Table 4-6 Summary of Impervious Cover Impacts, Alternative Siting at Laughlin Southwinds Marina Complex

Description	Demolition (Acres)	New Construction (Acres)
Maintenance Building/Boat Repair Facility	0.04	0.09
Recreational Center	0.03	0.09
Covered Boat Storage for 30 Boats	---	0.21
Cabin Sites (10 each)	0.02	0.05
Concrete Tent Pads (8 each) with 6 Gazebos	---	0.03
Laundry/Shower/Restrooms Facility	---	0.02
Additional Roadway for Cabins and Tent Sites	---	1.16
Covers for the existing 15 Recreation Vehicle Sites	---	---
Recreational Vehicle Sites (10 each) and Roadway	---	0.55
Marina Parking Expansion	---	3.44
Relocation of Petroleum Gas Tank and Secondary Containment System Pad	---	0.01
Reconstruction of Marina Dock System	---	---
Reconstruction of Breakwater	---	---
Evapotranspiration Fields	---	1.38
Pump Stations	---	0.01
TOTAL	0.09	7.04
TOTAL GAIN (LOSS):	6.95	

4.3.4.1.3 No-Action Alternative

Under the no-action alternative, there would be no change from the baseline conditions described in Section 3.3.4.1.

4.3.4.1.4 Cumulative Impacts

The proposed action would decrease the amount of impervious cover on Laughlin AFB (a loss of 1.08 acres of impervious cover) and, subsequently, the amount of stormwater runoff would also be reduced by approximately 1.25 cfs. The reduced runoff is based on a 25 year storm event assuming a 10 minute collection time, a runoff coefficient of 0.95 for hardened surfaces and 0.30 for undeveloped surfaces, using the Rational Method. Compared to an approximated 8,000 cfs cumulative stormwater flow for the entire 3,900-acre installation, the net decrease in peak flow would equate to less

than 0.01 percent of the total stormwater flow for Laughlin AFB. The projects discussed in Section 2.7 alone, without the proposed action, would increase the amount of impervious cover on Laughlin AFB by 1.32 acres. By implementing the proposed action, the amount of impervious cover created by the projects listed in Section 2.7 would be offset, thus causing a net gain of impervious cover for the installation of only 0.24 acres. The cumulative impact of the combine effort would increase stormwater runoff for Laughlin AFB by less than 0.01 percent.

There are no anticipated cumulative impacts for Laughlin Southwinds Marina Complex for surface water.

4.3.4.1.5 Mitigative Actions

The incorporation of best management practices for sediment control during construction would minimize potential water quality problems. Since construction and demolition activities would require the disturbance of more than one acre, a Notice of Intent (NOI) under the general Texas stormwater discharge permit for construction activities shall be filed with USEPA prior to construction. Additionally, the construction contractor shall be required to develop a stormwater pollution prevention plan for the project prior to submittal of the NOI. After completion of the project, a Notice of Termination (NOT) under the general permit shall be filed with the TCEQ.

No other water resources impacts would be anticipated. Therefore, no mitigative actions would be required.

4.3.4.2 Groundwater

4.3.4.2.1 Proposed Action

There would be no increase in the number of individuals assigned to Laughlin AFB and no new missions or workloads assigned to the installation. Additionally, during peak seasons marina managers operate various facilities at the complex at full capacity. The volume of visitors to the site often exceeds the accommodations of the complex. The proposed action was developed, therefore, to meet the demand of the current users of the recreational facilities. Therefore, there would be no substantive increase amount of water used on Laughlin AFB or at Laughlin Southwinds Marina Complex as a result of the proposed action. Accordingly, there would be no effect on groundwater from implementation of the proposed action.

4.3.4.2.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.4.2.3 No-Action Alternative

Under the no-action alternative, there would be no change from the baseline conditions described in Section 3.3.4.2.

4.3.4.2.4 Cumulative Impacts

Since there would be no effect on groundwater associated with the proposed or alternative actions at Laughlin AFB, there would be no cumulative impacts.

4.3.4.2.5 Mitigative Actions

Mitigation measures would not be required for the proposed action or alternative.

4.3.5 Hazardous Materials and Hazardous Waste

4.3.5.1 Hazardous Materials

The evaluation of impacts on hazardous materials included the assessment of the degree to which proposed construction activities could affect the existing environment.

4.3.5.1.1 Proposed Action

Hazardous materials used for the proposed action would be limited to those typical to a construction environment (e.g., fluids and fuels for construction equipment, asphalt ingredients, paints, etc.). The typical use of these materials in accordance with instructions and applicable regulations is not likely to create environmental release. The agency or contractor performing the construction would manage hazardous materials used during the project.

4.3.5.1.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.5.1.3 No-Action Alternative

Under the no-action alternative, there would be no change in the management of hazardous materials as described in Section 3.3.5.1.

4.3.5.1.4 Cumulative Impacts

The proposed action or alternative would contribute to a potential short-term increase in hazardous materials usage to support construction activities. This short-term increase in hazardous materials use would cease upon completion of the construction activities.

4.3.5.1.5 Mitigative Actions

Any spills of liquid products such as fuels, oils, and cleaning solvents would be managed according to the existing installation spill prevention and response plan. This

document implements applicable state and federal laws for management of these substances.

4.3.5.2 Hazardous Waste

Impacts to hazardous waste management would occur if the federal action resulted in noncompliance with applicable federal and state regulations or if an action had the potential to generate waste that could not be accommodated by Laughlin AFB current waste management procedures.

4.3.5.2.1 Proposed Action

Hazardous wastes are not expected to be generated as a result of the construction or operation projects. The hazardous materials described above are typically consumed in process and would, therefore, not create waste as an end product. If generated, hazardous wastes from the construction activities would be managed in accordance with applicable regulations by the agency or contractor generating the waste.

4.3.5.2.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.5.2.3 No-Action Alternative

Under the no-action alternative, there would be no change in the management of hazardous wastes as described in Section 3.3.5.2.

4.3.5.2.4 Cumulative Impacts

Hazardous wastes impacts would be the same as described for the proposed action. Therefore, there would be no cumulative impacts to hazardous waste.

4.3.5.2.5 Mitigative Actions

No hazardous wastes would be expected as a result of the proposed action and alternatives. Therefore, no mitigative actions would be required.

4.3.5.3 Installation Restoration Program

The evaluation of impacts on IRP sites requires multiple factors: 1) the type of site potentially impacted (i.e., an IRP site versus an AOC); 2) physical properties of the contamination (i.e., surface versus subsurface); 3) the environmental media affected (i.e., soil versus groundwater); 4) concentration levels of contaminants present; 5) the maturity of the IRP at that site in determining the extent and presence of contamination; and 6) the presence or absence of deed restrictions or land use controls.

4.3.5.3.1 Proposed Action

One IRP site (SS015) and one AOC (AOC04) could be impacted by the proposed demolition and construction projects (Figure 4-2). The Aircraft Maintenance Operations Center and Squadron Operations Facility 96 FTS Reserves facility could impact and be impacted by both SS015 and AOC04. Additionally, the Consolidated Student Activity Education Center could impact and be impacted by Site SS015, and the demolition of Building 31600 could impact and be impacted by AOC04.

The site status for AOC04 is "Closed - no further response action planned." However, project planners should coordinate all site disturbance activities with IRP project personnel at the preliminary planning stages to minimize any potential conflicts. A Remedial Investigation is being conducted for Site SS015 with planned remedial action to follow. As with AOC04, project planners are required to coordinate with IRP project personnel to gain the necessary regulatory guidance prior to any site disturbance. In addition, an IRP construction site waiver is required by HQ AETC/CE. The required waiver would be obtained prior to implementation of the proposed action. If any contaminated media is encountered at these project sites, the waste would be managed in accordance with existing plans and procedures established by Laughlin AFB.

4.3.5.3.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.5.3.3 No-Action Alternative

Under the no-action alternative, there would be no change in the management of the IRP as described in Section 3.3.5.3.

4.3.5.3.4 Cumulative Impacts

There is a potential for some of the projects discussed in Section 2.7 to also impact and be impacted by Site SS015. Any potential cumulative impacts would be the same as those described in the proposed action.

4.3.5.3.5 Mitigative Actions

Coordination with IRP project personnel at the preliminary planning stages prior to any site disturbance, strict regulatory compliance, and the management of all waste in accordance with all existing plans and procedures established by Laughlin AFB would be suitable mitigation for the actions associated with the proposed action and alternatives.

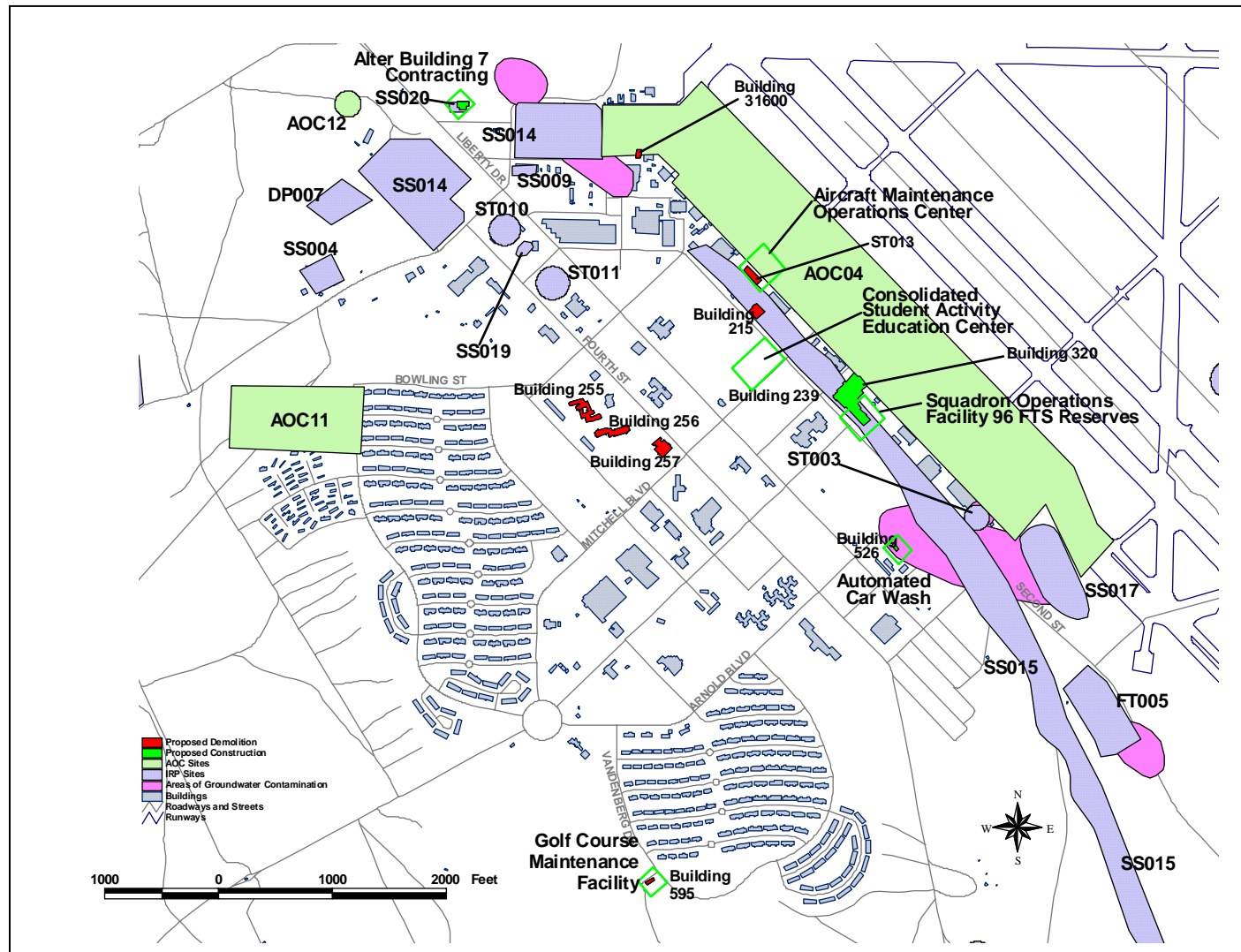


Figure 4-2 Location of Proposed Action IRP Sites and AOCs, Laughlin Air Force Base

4.3.5.4 Lead-based Paint and Asbestos

The evaluation of impacts associated with lead-based paint and asbestos included the assessment of the degree to which proposed construction and demolition activities could affect the existing environment.

4.3.5.4.1 Proposed Action

Some of the buildings targeted for demolition and construction activities are known to have some asbestos and LBP (Table 4-7). Some of the buildings require additional testing. Asbestos and LBP detection sampling would be accomplished prior to demolition of a facility.

If present, the demolition contractor would be responsible for all asbestos removal. All friable asbestos would be removed by a licensed asbestos abatement contractor using glove bag techniques just prior to actual demolition of the building. If this procedure is used, asbestos-containing areas would not require polyethylene containment and negative pressure. Non-friable asbestos can be disposed of as solid waste along with other construction debris as long as the landfill is permitted to accept non-friable asbestos waste. Non-friable asbestos would be moistened just prior to removal to minimize airborne fibers. All debris mixed with ACM debris must be kept wet and must be sent to an asbestos-approved landfill.

Removal of LBP must comply with 29 CFR 1910 and the *Laughlin AFB Lead-Based Paint Management Plan*. A removal plan must be approved by the government prior to any LBP abatement. Additionally, no LBP would be used for new construction or renovation. Demolition of substandard facilities containing asbestos and LBP would decrease human exposure to hazards.

4.3.5.4.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.5.4.3 No-Action Alternative

Under the no-action alternative, there would be no change in the management of asbestos and LBP as described in Section 3.3.5.4.

4.3.5.4.4 Cumulative Impacts

There is a potential for some of the projects discussed in Section 2.7 to also possess asbestos and LBP; however, any potential cumulative impacts would be the same as those described in the proposed action.

Table 4-7 Asbestos Hazards in Buildings Associated with the Proposed Action

Building	Type	Confirmed
Aircraft Maintenance Operations Center		
204	Wall - Sheetrock	Confirmed
	Pipe - Insulation	Confirmed
	Fitting – Insulation	Confirmed
	Ceiling - Sheetrock	Confirmed
	Ceiling Tile – Lay in	Confirmed
	Floor Tile	Presumed
	Heat/Air Conditioning Duct	Presumed
	Asphalt/Gravel - Roof	Presumed
215	Wall - Sheetrock	Confirmed
	Ceiling - Sheetrock	Confirmed
	Mechanical Equipment - Tank	Confirmed
	Domestic Water Fitting - Insulation	Confirmed
	Floor Tile	Presumed
	Heat/Air Conditioning Duct	Presumed
	Asphalt/Gravel - Roof	Presumed
Squadron Operations Facility for 96 FTS Reserves		
320	Floor Tile	Confirmed
	Asphalt/Gravel - Roof	Presumed
Consolidated Student Activity Education Center		
257	Floor Tile	Presumed
	Mastic	Presumed
	Asphalt/Gravel - Roof	Presumed
Golf Course Maintenance Facility		
595	No Data Available	Requires Testing
Automated Car Wash		
526	None	
Alter Building 7 Contracting		
7	None Expected	Requires Testing
Various Demolition Projects		
256	Floor Tile	Presumed
	Asphalt/Gravel - Roof	Presumed
255	Floor Tile	Confirmed
	Vinyl Composite Sheet Flooring	Confirmed
	Asphalt/Gravel - Roof	Presumed
31600	Asbestos Expected	Requires Testing
Laughlin Southwinds Marina Complex		
4000	Floor Tile	Presumed
4002	None Expected	Requires Testing

4.3.5.4.5 Mitigative Actions

All asbestos and LBP waste would be handled in accordance with strict regulatory compliance and in accordance with all existing plans and procedures established by Laughlin AFB. Therefore, no additional mitigative actions would be required.

4.3.6 Biological Resources

Potential impacts to biological resources are determined by analyzing the proposed action and alternatives within the context of existing conditions for regional biota and ecosystems. An impact to biological resources would be considered if the proposed action would have an adverse impact on threatened or endangered species, substantially diminish habitat for a plant or animal species, substantially diminish a regionally or locally important plant or animal species, interfere substantially with wildlife movement or reproductive behavior, or result in a substantial infusion of exotic plant or animal species.

4.3.6.1 Proposed Action

4.3.6.1.1 Vegetation and Wildlife

The proposed demolition and construction activities would occur within previously disturbed portions of Laughlin AFB. Most of the proposed project areas at the Laughlin Southwinds Marina Complex would also occur in areas that have been previously disturbed. However, in those areas that have not been previously disturbed, the existing vegetation does not represent unique habitat, and is not regionally significant to the movement or reproductive behavior of wildlife in the area. There would be no impacts to vegetation outside the proposed project areas and best management practices during demolition and construction would minimize impacts to vegetation at and near the construction sites. For those construction projects on Laughlin AFB, the new trees, shrubs, and other landscaping would provide additional urban habitat for birds and other wildlife. It is believed that once construction at the Laughlin Southwinds Marina Complex is complete, wildlife displaced during construction activities would re-inhabit the area.

4.3.6.1.2 Threatened and Endangered Species

The Texas horned lizard and Texas indigo snake are two state-listed threatened species previously recorded on Laughlin AFB. However, the potential for the habitats of both species to occur in the developed areas of the installation is limited. The Texas indigo snake prefers mesquite brush country near ponds and streams, while the Texas horned lizard prefers a mixture of bare ground and herbaceous vegetation with loose sand or soil. All of the project sites are in developed areas of the installation away from potential habitat for either species. Therefore, the potential for the proposed action to impact either the Texas indigo snake or the Texas horned lizard is low.

There are no known threatened or endangered species at the Laughlin Southwinds Marina Complex. Therefore, there would be no impacts associated with the proposed action.

4.3.6.1.3 Wetlands

The proposed demolition and construction activities associated with the proposed action would not occur in wetland areas. Therefore, the requirements of Section 404 of the CWA and Section 10 of the Rivers and Harbors Act of 1899 are not applicable.

4.3.6.1.4 Floodplains

The proposed action would not be located within areas designated as part of the 100-year floodplain on Laughlin AFB. Additionally, all of the proposed projects at the Laughlin Southwinds Marina Complex would be above the maximum flood elevation for Lake Amistad.

4.3.6.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.6.3 No-Action Alternative

The construction of the proposed facilities would not take place. Therefore, there would be no impacts to biological resources on Laughlin AFB as a result of the no-action alternative.

4.3.6.4 Cumulative Impacts

Given that the proposed action or alternative would not substantially diminish the habitat of regionally or locally important plant or animal species, interfere substantially with the movement or reproductive behavior of wildlife, infuse exotic plants or animals, significantly impact threatened or endangered species, or occur in a floodplain, wetland, or below the flood elevation at Lake Amistad, no cumulative biological resource impacts would be expected as a result of the proposed action or alternative and other actions at Laughlin AFB.

4.3.6.5 Mitigative Actions

As no construction, renovation, or demolition of facilities would occur outside the previously disturbed developed area, impact to biological resources inclusive of endangered or threatened species would not occur. Therefore, no mitigation measures beyond best management construction practices are required.

4.3.7 Utilities and Infrastructure

In evaluating impacts on infrastructure and utilities, several items were examined, including: 1) the degree to which a utility service would have to alter operating practices

and personnel requirements, 2) the degree to which the change in demands from implementation of the proposed action and alternatives would impact the system's capacity, 3) the degree to which a transportation system would have to alter operating practices and personnel requirements to support the action, 4) the capacity required from new or revised transportation systems, 5) the degree to which the increased demands from the proposed program would reduce the reliability of transportation systems or aggravate already existing adverse conditions on base, and 6) the degree to which the proposed action and alternatives would change surface water runoff characteristics and erosion characteristics. For the evaluation of potential impacts, the ROI for the infrastructure and utilities resource area encompasses Laughlin AFB.

4.3.7.1 Stormwater Drainage

4.3.7.1.1 Proposed Action

Under the proposed action, multiple facilities would be constructed at Laughlin AFB and at Laughlin Southwinds Marina Complex. As detailed in Table 4-3, there would be a decrease of impervious cover on Laughlin AFB. This is expected to decrease the total volume of stormwater runoff on the installation and would not impact existing capacity of the stormwater drainage systems. There would be an increase in stormwater runoff associated with the proposed action at the Laughlin Southwinds Marina Complex. As part of the proposed action, it would be expected that the stormwater runoff would increase approximately 34.4 cfs during peak flow conditions. However, there is no existing stormwater collection system in place at the marina complex. All runoff flows naturally into Lake Amistad. The increased amount due to the proposed action would be less than 1.5 percent of the average outflow. The design flow for the lake's outfalls would still be significantly greater than the average rate.

Construction activities disturbing less than one acre that are not part of a larger plan do not require permitting. If the construction activity disturbs between one and five acres, a stormwater discharge permit for small construction activities would be required. Permitting for small construction activities is a relatively new regulation that appeared in Phase II (08 December 1998) of the National Stormwater Program. Construction activities requiring a stormwater permit would require the Air Force to develop a Stormwater Pollution Prevention Plan (SWPPP) perform an endangered species act certification process, complete and submit an NOI form to apply for permit coverage, implement the SWPPP, and submit an NOT to discontinue coverage if final stabilization has been achieved at the site.

4.3.7.1.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, there would be an increase in stormwater runoff at the Laughlin Southwinds Marina Complex. The stormwater runoff would increase approximately 36.1 cfs during peak flow conditions. However as stated in Section 4.3.7.1.1, there is no existing stormwater collection system in place at the marina

complex. All runoff flows naturally into Lake Amistad. The increased amount would be less than the design capacity of the lake.

4.3.7.1.3 No-Action Alternative

Under the no-action alternative, there would be no demolition or construction projects; therefore, there would be no effect on stormwater drainage as described in Section 3.3.7.1.

4.3.7.1.4 Cumulative Impacts

The proposed action would decrease the amount of stormwater runoff generated during peak flow conditions. The projects discussed in Section 2.7 alone, without the proposed action, would increase the amount of impervious cover on Laughlin AFB by 1.32 acres thus increasing the amount of stormwater runoff. By implementing the proposed action, the amount of runoff would be offset (or actually reduced) by the proposed projects. The amount of stormwater runoff would be reduced by approximately 1.25 cfs as a result of the proposed action. Compared to an approximated 8,000 cfs cumulative stormwater flow for the entire 3,900-acre installation, the net decrease in peak flow would equate to less than 0.1 percent of the total stormwater flow for Laughlin AFB. This reduction in the amount of stormwater runoff as a result of the cumulative impacts of the proposed action and other actions on Laughlin AFB would have a minor positive impact on the stormwater collection systems. This minor beneficial impact would be distributed over all five drainage basins on the installation.

Given the natural drainage patterns for the area and the lack of other ongoing action at Laughlin Southwinds Marina Complex, there are no anticipated cumulative impacts for marina complex with regards to stormwater drainage.

4.3.7.1.5 Mitigative Actions

The ground surface areas at Laughlin AFB are relatively level as are the proposed construction areas at the Laughlin Southwinds Marina Complex, and only minor erosion from stormwater runoff would be expected. Accepted containment procedures would be implemented during the construction phases to minimize sediment runoff from the disturbed areas; therefore, no mitigation measures are required.

4.3.7.2 Solid Waste Management

In considering the basis for evaluating solid waste impacts, several items were considered, including evaluating the degree to which proposed construction, changes in operations, and the potential for generating additional waste could affect the existing solid waste management program and capacity of the area landfills. The solid waste generated during the construction and demolition phases of the project would consist of building materials such as solid pieces of concrete, metals (conduit, piping, wiring), and lumber.

The analysis presented in this section incorporates the following assumptions:

- Approximately 1 pound of construction debris is generated for each square foot of new asphalt/concrete pavement.
- The approximate rate of solid waste generation from construction and renovation is 4.25 pounds per square foot (Murphy and Chatterjee 1976).
- Approximately 92 pounds of demolition debris is generated for each square foot of floor area of demolished structures (USACE 1976).

4.3.7.2.1 Proposed Action

There would be no daily net increase of permanent party personnel associated with the proposed action. Therefore, there would be no increase in the generation of recurring solid waste. There would be a temporary increase in solid waste generation as a result of the proposed construction and demolition activities on Laughlin AFB. This one-time generation of solid waste would equate to approximately 4,753.1 tons (Table 4-8), or 10 percent of the total volume of solid waste received at the City of Del Rio landfill in 2002 (48,645 tons). The waste stream associated with the proposed actions at the Laughlin Southwinds Marina Complex would generate approximately 449.8 tons of solid waste (Table 4-9), also to be disposed of at the City of Del Rio landfill. Together the volume of waste would equate to approximately 11 percent of the 2002 annual waste stream of the landfill. The remaining estimated capacity of the landfill as reported to TCEQ is approximately 647,234 tons or approximately 13 years. The total volume of waste (5,202.9 tons) expected from the proposed action would equate to less than one percent (0.8 percent) of the remaining capacity of the landfill.

Table 4-8 Solid Waste Generation for the Proposed Construction and Demolition Activities on Laughlin AFB

	Roadways/Parking Areas Square Feet		Total Waste
	Square Feet	Factor	Tons
Proposed (Construction) Roadways and Parking Areas	3,250	1 pound per square foot	1.6
Proposed (Construction) Facilities	50,740	4.25 pounds per square foot	107.8
Existing (Demolition) Facilities	100,949	92 pounds per square foot	4,643.7
Total Waste Generated	--	---	4,753.1

Table 4-9 Solid Waste Generation for the Proposed Construction and Demolition Activities at Laughlin Southwinds Marina Complex

	Roadways/Parking Areas Square Feet		Total Waste
	Square Feet	Factor	Tons
Proposed (Construction) Roadways and Parking Areas	210,400	1 pound per square foot	105.2
Proposed (Construction) Facilities	81,925	4.25 pounds per square foot	174.1
Existing (Demolition) Facilities	3,706	92 pounds per square foot	170.5
Total Waste Generated	--	---	449.8

4.3.7.2.2 Laughlin Southwinds Marina Complex Alternative Siting

Under the alternative action for the Laughlin Southwinds Marina Complex additional waste would be generated as a result of the additional roadways and parking areas that would be constructed (Table 4-10). This additional waste would equate to approximately seven tons of solid waste that would be disposed of in the City of Del Rio landfill along with the waste from Laughlin AFB (total waste for the two areas would be 5,209.9 tons). The total waste would equate to about 11 percent of the landfill's annual waste stream and 0.8 percent of its total capacity.

Table 4-10 Solid Waste Generation for the Alternative Siting Construction and Demolition Activities at Laughlin Southwinds Marina Complex

	Roadways/Parking Areas Square Feet		Total Waste
	Square Feet	Factor	Tons
Alternative (Construction) Roadways and Parking Areas	224,400	1 pound per square foot	112.2
Alternative (Construction) Facilities	81,925	4.25 pounds per square foot	174.1
Existing (Demolition) Facilities	3,706	92 pounds per square foot	170.5
Total Waste Generated	--	---	456.8

4.3.7.2.3 No-Action Alternative

Under the no-action alternative, there would be no demolition or construction activities. Therefore, there would be no effect on solid waste management as described in Section 3.3.7.2.

4.3.7.2.4 Cumulative Impacts

Analysis of the potential impacts from other proposed actions within the ROI have been, or are currently being analyzed in separate NEPA documents. Solid wastes

generated within the ROI could cumulatively decrease the life of the City of Del Rio landfill; however, with a capacity of 647,234 tons, it is expected there would be adequate capacity to manage solid waste generated by the projects discussed in Section 2.7 of this document. The combined solid waste stream for all construction and demolition activities for the proposed action and other actions on Laughlin AFB and at the Laughlin Southwinds Marina Complex would be approximately 7,962.9 tons (Table 4-11). All of the waste would be disposed of in the City of Del Rio landfill. The total waste would equate to about 16 percent of the landfill's annual waste stream and 1.2 percent of its total remaining capacity.

Table 4-11 Solid Waste Generation for the Cumulative Construction and Demolition Activities on Laughlin AFB

	Roadways/Parking Areas Square Feet		Total Waste
	Square Feet	Factor	Tons
Cumulative (Construction Parking)	55,580	1 pound per square foot	27.8
Cumulative (Construction)	116,380	4.25 pounds per square foot	247.3
Cumulative (Demolition)	54,019	92 pounds per square foot	2,484.9
Proposed (Construction) Roadways and Parking Areas (Laughlin AFB)	3,250	1 pound per square foot	1.6
Proposed (Construction) - Laughlin AFB	50,740	4.25 pounds per square foot	107.8
Proposed (Demolition) - Laughlin AFB	100,949	92 pounds per square foot	4,643.7
Proposed (Construction) Roadways and Parking Areas - Laughlin Southwinds Marina Complex	210,400	1 pound per square foot	105.2
Proposed (Construction) - Laughlin Southwinds Marina Complex	81,925	4.25 pounds per square foot	174.1
Proposed (Demolition) - Laughlin Southwinds Marina Complex	3,706	92 pounds per square foot	170.5
Total Waste Generated	--	---	7,962.9

4.3.7.2.5 Mitigative Actions

Since demolition and construction waste generated under the proposed actions would be managed and disposed of by the contractor and existing waste management and disposal facilities are adequate to handle the addition of waste materials, no mitigation measures are required. Some of the waste debris could be pulverized by mechanical grinding prior to disposal to further decrease the volume of waste disposed at the landfill and some material could be recycled or reused.

4.3.7.3 Transportation

4.3.7.3.1 Proposed Action

Under the proposed action, there would be no daily net increase in the amount of permanent party personnel or students accessing Laughlin AFB. Minor traffic congestion from the construction activities could occur as a result of heavy equipment and contractor vehicles. This congestion would be short-term and would cease upon completion of the projects. During peak seasons, marina managers operate various facilities at the complex at full capacity. The volume of visitors to the site often exceeds the accommodations of the complex. The proposed action was developed, therefore, to meet demands of current users of the recreational facility. Although it is expected that there would be some increase in the number of visitors to the marina, it is not likely that the volume would exceed the capacity of the current off-base road system, because of the marina's remote setting.

4.3.7.3.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the baseline.

4.3.7.3.3 No-Action Alternative

Impacts to transportation under the alternative action would be the same as described for the proposed action (Section 3.3.7.3).

4.3.7.3.4 Cumulative Impacts

Transportation within the ROI may experience slight, localized short-term impacts during the construction and demolition of the proposed facilities as a result of the operation of construction equipment; however, impacts would be minimized by the short operating period associated with each project.

4.3.7.3.5 Mitigative Actions

No mitigative actions would be required as a result of the proposed action or alternative.

4.3.7.4 Electricity and Natural Gas

4.3.7.4.1 Proposed Action

Habitable space on Laughlin AFB would decrease by approximately 50,209 square feet, while habitable space at the Laughlin Southwinds Marina Complex would increase by approximately 7,134 square feet. Thus, there would be a net loss of habitable space for both locations of approximately 43,075 square feet. This would equate in a reduced demand on electricity and natural gas as a result of the proposed action.

4.3.7.4.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action. There would be a decrease in the amount of habitable space for both locations combined and a reduced demand on electricity and natural gas.

4.3.7.4.3 No-Action Alternative

Under the no-action alternative, there would be no construction, renovation, or demolition activities. Therefore, there would be no effect on electricity and natural gas as described in Section 3.3.7.4.

4.3.7.4.4 Cumulative Impacts

The other foreseeable projects discussed in Section 2.7 of this document would increase the habitable space on Laughlin AFB by approximately 62,361 square feet. Because there would be a loss of approximately 43,075 square feet of habitable space under the proposed action, when combined with the other foreseeable actions the amount of habitable space on would only increase for the two locations by 19,286 square feet. While this is an increase in habitable space, it is a smaller increase as a result of the proposed action. Thus, this would equate to a reduced demand on electricity and natural gas as a result of the proposed action.

4.3.7.4.5 Mitigative Actions

Mitigation measures for increased energy requirements would not be required for the proposed action.

4.3.7.5 Sanitary Sewer

4.3.7.5.1 Proposed Action

There would be no increase in the number of individuals working and living on Laughlin AFB. As such, impacts to the sanitary sewer system would be consistent with those defined in Section 3.3.7.5.

As part of the proposed action the Laughlin Southwinds Marina Complex would expand the existing evapotranspiration field from a 150-foot by 154-foot area to a 300-foot by 200-foot area. During peak seasons marina managers operate various facilities at the complex at full capacity. The proposed expansion was developed to meet the current and projected demand of the recreational facilities at the marina.

4.3.7.5.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.7.5.3 No-Action Alternative

Under the no-action alternative, there would be no construction, renovation, or demolition activities. Therefore, there would be no effect on the sanitary sewer system as described in Section 3.3.7.5.

4.3.7.5.4 Cumulative Impacts

There would be no increase in wastewater generation on Laughlin AFB or the Laughlin Southwinds Marina Complex as a result of the proposed action or the alternative and those efforts defined in Section 2.7. Therefore, cumulative impacts are not expected.

4.3.7.5.5 Mitigative Actions

Mitigation measures would not be required for the proposed action. Impacts on wastewater treatment and capacities would not occur.

4.3.7.6 Potable Water

4.3.7.6.1 Proposed Action

There would be no increase in the number of individuals working and living on Laughlin AFB. Therefore, there would be no effect on the potable water system as described in Section 3.3.7.6.

4.3.7.6.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.7.6.3 No-Action Alternative

Under the no-action alternative, there would be no construction, renovation, or demolition activities. Therefore, there would be no effect on the potable water system as described in Section 3.3.7.6.

4.3.7.6.4 Cumulative Impacts

There would be no increase in amount of potable water used on Laughlin AFB or the Laughlin Southwinds Marina Complex as a result of the proposed action or alternative and those efforts defined in Section 2.7. Therefore, cumulative impacts to the regional water supply or system are not expected.

4.3.7.6.5 Mitigative Actions

No impacts to the potable water supply would be anticipated at Laughlin AFB for the proposed action or alternatives. Therefore, no mitigative actions would be required.

4.3.8 Socioeconomics

The socioeconomic analysis for this effort addressed the potential impacts to population, housing, and the economy within the ROI that could result from the implementation of the proposed action and alternatives.

4.3.8.1 Proposed Action

The proposed projects would not increase the number of permanent-party personnel at Laughlin AFB. As such, there would be no impact to the population of Val Verde County or the City of Del Rio. Additionally, there would be no impact on the housing market or regional economy as a result of the proposed action. Slight benefits would occur to the local economy through the proposed construction projects.

4.3.8.2 Laughlin Southwinds Marina Complex Alternative Siting

Under this alternative, impacts would be the same as described for the proposed action.

4.3.8.3 No-Action Alternative

Under the no-action alternative, there would be no change from baseline conditions as described in Section 3.3.8.

4.3.8.4 Cumulative Impacts

The proposed action or alternative and all other announced actions for Laughlin AFB would take place in the vicinity of the base, and would not be expected to increase the population of the base or impact the local housing market. Therefore, no cumulative effects are anticipated. The cumulative effect of the proposed construction, renovation, and demolition projects would result in a slight positive benefit to the local economy.

4.3.8.5 Mitigative Actions

Mitigation measures would not be required for the proposed or alternative actions.

CHAPTER 5**LIST OF PREPARERS**

Name/Organization	Degree	Professional Discipline	Years of Experience
Kent R. Wells SAIC	B.S., Geology	Environmental Scientist	19
Robin Divine SAIC	M.S., Industrial Hygiene B.A, Geography and Environmental Management M.A.G., Geography and Environmental Management	Environmental Scientist	14
Victoria Wark SAIC	B.S., Biology	Biologist	18
Benjamin Elliott SAIC	B.A. Physical Sciences, B.S. Civil Engineering, M.S. E. Petroleum and Geosystems Engineering,	Civil Engineer	9
Carol Johnson SAIC	B.S., Education	Senior Technical Editor	9

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CHAPTER 6

PERSONS AND AGENCIES CONSULTED

The following individuals were consulted during the preparation of this EA:

6.1 FEDERAL AGENCIES

Laughlin Air Force Base

Deary, Dan (47 ADS/SGGB)
Easterly, Mike (47 MSG/SVROM)
Flores, Ramon (47 CES/CEV)
Gallegos, Dan (47 CES/CEVR)
Graf, Ben (47 CES/CECCE)
Harris, Captain Jennifer (47 CES/CEC)
Markus, Erik (47 MSG/SVRO)
Morin, David (47 CES/CEV)
Morris, Bill (47 SV/SVRSA)
Ney, Jodi (47 CES/CEV)
Pak, Chris (47 CES/CEOE)
Powell, Susan (47 MSG/SVR)
Schnipke, Chris (47 CES/CEC)
White, Kathy (47 FTW/PA)

Headquarters Air Education and Training Command

Erwin, Marion (HQ AETC/CEVN)

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CHAPTER 7**REFERENCES**

- AIHA 1986. American Industrial Hygiene Association, *Noise and Hearing Conservation Manual*, Fourth Edition, 1986.
- ANSI 1983. American National Standards Institute, *American National Standard Specification for Sound Level Meters*, April 1983.
- Bies and Hansen 1988. *Engineering Noise Control: Theory and Practice*, London: Unwin Hyman, pp. 36-37, 1988.
- CERL 1978. United States Army, Construction and Engineering Research Laboratory, *MicroBNOISE, A Users Manual*, Technical Report N-86/12, June 1978.
- Harris, 1991. Harris, Cyril M., *Handbook of Acoustic Measurements and Noise Control*, 3rd Edition, New York:McGraw-Hill, 1991.
- Means 1997a. R.S. Means Company, *Site Work and Landscape Cost Data*, 16th Edition, Kingston, 1997.
- Means 1997b. R.S. Means Company, *Building Construction Cost Data*, 55th Edition, Kingston, 1997.
- Merritt 1976. Merritt, Frederick S. *Standard Handbook for Civil Engineers*. 1976.
- Murphy and Chatterjee 1976. Murphy, K.S., and S. Chatterjee, *Development of Predictive Criteria for Demolition and Construction Solid Waste Management*, Construction Engineering Research Laboratory, Champaign, October 1976.
- NOAA 2005. Rio Grande at Lake Amistad. National Weather Service Advanced Hydrologic Prediction Service. Observations Courtesy of the US Geological Survey. <http://www.srh.noaa.gov/cgi-bin/ahps.cgi?ewx&amit2&hydrograph> July 19, 2005.
- NPS 2005. *Amistad National Recreational Area – Park Information*. National Parks Service, United States Department of the Interior. <http://www.us-parks.com/amistad/nature.html>. July 7, 2005.
- Parsons 1997. Parsons Engineering Science, Inc., figure presenting typical sound levels from indoor and outdoor noise sources, 1997.
- TCEQ 2002. *Municipal Solid Waste in Texas A Year in Review*. 2002 Data Summary Analysis. Texas Commission on Environmental Quality, Austin, Texas. Environmental Planning Implementation Division. March 2004-AS187/03. http://www.tceq.state.tx.us/assesssts/public/comm._exec/pubs/as/187_03.pdf
- TCEQ 2003. Texas Commission on Environmental Quality TPDES General Permit No. TXR150000. Austin, Texas. March 05, 2003.
-

- TNRCC 2005. *Municipal Solid Waste Application Search Results*. Texas Natural Resource Conservation Commission. http://www.tnrcc.state.tx.us/cgi=bin/waste/msw/mswquery.pl?categ=apps&Q_msw_no=207. July 20, 2005.
- TPWD 2005. *Texas Parks and Wildlife Threatened and Endangered Species*. <http://www.tpwd.state.tx.us/nature/ending/animals/> July 18, 2005.
- USACE 1976. *Development of Predictive Criteria for Demolition and Construction Solid Waste Management*. United States Army Corps of Engineers. October 1976.
- USAF 2000. *Environmental Assessment Multiple Construction and Demolition Projects Laughlin Air Force Base, Texas*. Air Education and Training Command. October 2000.
- USAF 2002. *Final Installation Restoration Program Management Action Plan Laughlin Air Force Base, Del Rio, Texas*. Air Force Center for Environmental Excellence, Brooks City-Base, San Antonio, Texas; Air Education and Training Command, Randolph Air Force Base, San Antonio, Texas; and 47 CES/CEVR, Laughlin Air Force Base, Del Rio, Texas. September 2002.
- USAF 2003. *Final Community Relations Plan, Laughlin Air Force Base, Del Rio, Texas*. 47th Mission Support Group, Laughlin Air Force Base, Texas. December 2003.
- USAF 2004a. *Final Preliminary Assessment for Laughlin Air Force Base, Del Rio, Texas*. 47th Mission Support Group, Laughlin Air Force Base, Texas. January 16, 2004.
- USAF 2004b. *Final Installation Restoration Program Management Action Plan Laughlin Air Force Base, Del Rio, Texas*. 47 CES/CEVR, Laughlin Air Force Base, Del Rio, Texas. November 2004.
- USCB 2002. *Population Change and Distribution, Census 2000 Brief*. <http://www.census.gov/prod/2001pubs/c2kbr01-2.pdf>. (23 October 2002).
- USCB 2005. *Val Verde County QuickFacts from the US Census Bureau*. Texas QuickFacts, Val Verde County, Texas. <http://quickfacts.census.gov/qfd/states/48/48465.html> July 19, 2005.
- USEPA 1985. United States Environmental Protection Agency, *Compilation of Air Pollutant Emission Factors, Volume 2: Mobile Sources (AP-42)*, 4th Edition, Ann Arbor, September 1985.
- USEPA 1988. United States Environmental Protection Agency, *Gap Filling PM₁₀ Emission Factors for Selected Open Dust Sources*, February, 1988.
- Ward 2005. Ward, Ryan. Texas Indigo Snake Habitat. Site maintained by Dr. Mark Wallace Texas Tech University. [http://www.rw.ttu.edu/sp_accounts/Indigo%20 snake/Habitat.htm](http://www.rw.ttu.edu/sp_accounts/Indigo%20snake/Habitat.htm). July 27, 2005.
- WWF 2005. *Terrestrial Ecoregions – Tamaulipan Mezquital (NA1312)*. WildWorld Full Report. World Wildlife Organization. http://www.worldwildlife.org/wildworld/profiles/terrestrial/na/na1312_full.html. July 7, 2005.
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APPENDIX A

AIR QUALITY ANALYSIS

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS
SUMMARY OF PROPOSED ACTION EMISSIONS

Summary of Emissions, Proposed Action

Emissions Source	Emissions (tpy)					
	SOx	NOx	CO	VOC	PM ₁₀	Lead
Heavy Equipment Emissions (Construction) ^a	2.11	19.71	7.89	1.70	1.33	0.00
Fugitive Dust Emissions (Construction) ^a	0.00	0.00	0.00	0.00	1.02	0.00
Fugitive Dust Emissions (Demolition) ^a	0.00	0.00	0.00	0.00	0.37	0.00
Total Emissions:	2.11	19.71	7.89	1.70	2.72	0.00
^a All construction emissions are considered to be temporary emissions.						

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS

HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Aircraft Maintenance Operations Center (21,250 sf)

Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	64	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	102	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	84	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	132	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	356	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	250	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	16	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	40	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	224	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	8	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			406	3,781	1,517	324	254	0
Total Emissions (tpy):			0.20	1.89	0.76	0.16	0.13	0.00
^a Estimated using factors from Means 1997a and Means 1997b.								
^b Source: USEPA 1985								

Squadron Operations Facility (3.650 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	18	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	54	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	44	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	64	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			180	1,679	674	145	113	0
Total Emissions (tpy):			0.09	0.84	0.34	0.07	0.06	0.00
^a Estimated using factors from Means 1997a and Means 1997b.								
^b Source: USEPA 1985								
lb/hr pounds per hours			SO _x	sulfur oxide				
CO carbon monoxide			NO _x	nitrogen oxide				
VOC volatile organic compound			PM ₁₀	particulate matter equal to or less than 10 microns in diameter				

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS
HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Consolidated Student Activity Education Center (17,840 sf)								
Equipment Type	Number Used	Operation (Hours)^a	Emission Factors (lb/hr)^b					Lead
			SO_x	NO_x	CO	VOC	PM₁₀	
Bulldozer	1	56	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	96	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	78	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	126	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	340	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	240	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	12	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	36	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	216	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	8	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			387	3,600	1,446	307	242	0
Total Emissions (tpy):			0.19	1.80	0.72	0.15	0.12	0.00
Golf Course Maintenance Facility (5,000 sf)								
Equipment Type	Number Used	Operation (Hours)^a	Emission Factors (lb/hr)^b					Lead
			SO_x	NO_x	CO	VOC	PM₁₀	
Bulldozer	1	20	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	58	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	48	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	70	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			184	1,722	690	149	116	0
Total Emissions (tpy):			0.09	0.86	0.34	0.07	0.06	0.00
^a Estimated using factors from Means 1997a and Means 1997b.								
^b Source: USEPA 1985								
lb/hr pounds per hours			SO _x	sulfur oxide				
CO carbon monoxide			NO _x	nitrogen oxide				
VOC volatile organic compound			PM ₁₀	particulate matter equal to or less than 10 microns in diameter				

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS

HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Automated Car Wash (1,500 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					
			SO _x	NO _x	CO	VOC	PM ₁₀	Lead
Bulldozer	1	16	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	48	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	40	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	56	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			174	1,624	653	139	109	0
Total Emissions (tpy):			0.09	0.81	0.33	0.07	0.05	0.00
Alter Building 7 Contracting (1,000 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					
			SO _x	NO _x	CO	VOC	PM ₁₀	Lead
Bulldozer	1	16	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	48	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	40	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	56	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			174	1,624	653	139	109	0
Total Emissions (tpy):			0.09	0.81	0.33	0.07	0.05	0.00

^a Estimated using factors from Means 1997a and Means 1997b.

^b Source: USEPA 1985

lb/hr	pounds per hours	SO _x	sulfur oxide
CO	carbon monoxide	NO _x	nitrogen oxide
VOC	volatile organic compound	PM ₁₀	particulate matter equal to or less than 10 microns in diameter

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS

HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Maintenance Building/Boat Repair Facility (4,000 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	18	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	54	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	44	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	64	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			180	1,679	674	145	113	0
Total Emissions (tpy):			0.09	0.84	0.34	0.07	0.06	0.00
Recreational Center (4,000 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	18	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	54	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	44	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	64	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			180	1,679	674	145	113	0
Total Emissions (tpy):			0.09	0.84	0.34	0.07	0.06	0.00

^a Estimated using factors from Means 1997a and Means 1997b.

^b Source: USEPA 1985

lb/hr	pounds per hours	SO _x	sulfur oxide
CO	carbon monoxide	NO _x	nitrogen oxide
VOC	volatile organic compound	PM ₁₀	particulate matter equal to or less than 10 microns in diameter

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS

HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Covered Boat Storage (9,000 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	36	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	72	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	64	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	72	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	8	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	20	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			193	1,812	718	162	124	0
Total Emissions (tpy):			0.10	0.91	0.36	0.08	0.06	0.00
Cabin Sites (2,040 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	16	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	48	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	40	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	56	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	128	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	100	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			174	1,624	653	139	109	0
Total Emissions (tpy):			0.09	0.81	0.33	0.07	0.05	0.00
^a Estimated using factors from Means 1997a and Means 1997b.								
^b Source: USEPA 1985								
lb/hr	pounds per hours		SO _x	sulfur oxide				
CO	carbon monoxide		NO _x	nitrogen oxide				
VOC	volatile organic compound		PM ₁₀	particulate matter equal to or less than 10 microns in diameter				

Concrete Tent Pads (1,485 sf)

Laundry/Shower/Restrooms Facility (800 sf)

SO_x sulfur oxide
NO_x nitrogen oxide
PM₁₀ particulate matter equal to or less than 10 microns in diameter

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS

HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Roadways (36,400 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	72	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	124	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	96	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	148	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	368	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	256	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	18	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	48	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	224	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	8	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			427	3,989	1,595	345	269	0
Total Emissions (tpy):			0.21	1.99	0.80	0.17	0.13	0.00
Recreational Vehicle Sites (24,000 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SO _x	NO _x	CO	VOC	PM ₁₀	
Bulldozer	1	64	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	102	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	84	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	132	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	356	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	250	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	16	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	40	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	224	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	8	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			406	3,781	1,517	324	254	0
Total Emissions (tpy):			0.20	1.89	0.76	0.16	0.13	0.00

^a Estimated using factors from Means 1997a and Means 1997b.

^b Source: USEPA 1985

lb/hr	pounds per hours	SO _x	sulfur oxide
CO	carbon monoxide	NO _x	nitrogen oxide
VOC	volatile organic compound	PM ₁₀	particulate matter equal to or less than 10 microns in diameter

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS
HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Marina Parking Expansion (150,000 sf)								
Equipment Type	Number Used	Operation (Hours)^a	Emission Factors (lb/hr)^b					Lead
			SO_x	NO_x	CO	VOC	PM₁₀	
Bulldozer	1	84	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	148	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	102	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	156	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	400	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	264	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	24	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	56	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	240	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	12	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			463	4,325	1,726	376	293	0
Total Emissions (tpy):			0.23	2.16	0.86	0.19	0.15	0.00
Relocation of Petroleum Gas Tank (400 sf)								
Equipment Type	Number Used	Operation (Hours)^a	Emission Factors (lb/hr)^b					Lead
			SO_x	NO_x	CO	VOC	PM₁₀	
Bulldozer	1	16	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	24	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	20	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	48	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	56	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	48	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	64	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			95	892	359	76	60	0
Total Emissions (tpy):			0.05	0.45	0.18	0.04	0.03	0.00
^a Estimated using factors from Means 1997a and Means 1997b.								
^b Source: USEPA 1985								
lb/hr pounds per hours			SO _x	sulfur oxide				
CO carbon monoxide			NO _x	nitrogen oxide				
VOC volatile organic compound			PM ₁₀	particulate matter equal to or less than 10 microns in diameter				

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS

HEAVY EQUIPMENT EMISSIONS, PROPOSED ACTION

Evapotranspiration Fields (60,000 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SOx	NOx	CO	VOC	PM ₁₀	
Bulldozer	1	84	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	96	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	56	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	48	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	64	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	0	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	24	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	40	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	124	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	24	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			154	1,468	571	137	103	0
Total Emissions (tpy):			0.08	0.73	0.29	0.07	0.05	0.00
Pump Stations (200 sf)								
Equipment Type	Number Used	Operation (Hours) ^a	Emission Factors (lb/hr) ^b					Lead
			SOx	NOx	CO	VOC	PM ₁₀	
Bulldozer	1	16	0.137	1.260	0.346	0.148	0.112	0.000
Backhoe (rubber tire)	1	24	0.182	1.890	0.572	0.291	0.172	0.000
Front Loader (rubber tire)	1	20	0.182	1.890	0.572	0.291	0.172	0.000
Dump Truck	1	48	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Truck	1	56	0.454	4.166	1.794	0.304	0.256	0.000
Concrete Finisher	1	0	0.023	0.412	17.000	0.580	0.025	0.000
Crane	1	48	0.137	1.260	0.346	0.148	0.112	0.000
Asphalt Spreader	1	6	0.143	1.691	0.675	0.183	0.139	0.000
Asphalt Roller	1	18	0.067	0.862	0.304	0.083	0.050	0.000
Flat-bed (18 Wheel)	1	64	0.454	4.166	1.794	0.304	0.256	0.000
Grader	1	4	0.086	0.713	0.151	0.052	0.061	0.000
Trenching Machine	1	0	0.143	1.691	0.675	0.183	0.139	0.000
Total Emissions (lb/yr):			95	892	359	76	60	0
Total Emissions (tpy):			0.05	0.45	0.18	0.04	0.03	0.00
^a Estimated using factors from Means 1997a and Means 1997b.								
^b Source: USEPA 1985								
lb/hr	pounds per hours		SO _x	sulfur oxide				
CO	carbon monoxide		NO _x	nitrogen oxide				
VOC	volatile organic compound		PM ₁₀	particulate matter equal to or less than 10 microns in diameter				

**AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS
FUGITIVE DUST EMISSIONS, PROPOSED ACTION**

Construction of Facilities at Laughlin AFB, Texas, Proposed Action

Project	Disturbed Area (ft²)	Disturbance Duration (days)	PM₁₀ Emissions (lbs)*	PM₁₀ Emissions (tons)
Aircraft Maintenance Operations Center	2,000	2.0	2	0.00
Squadron Operations Facility	3,650	3.0	5	0.00
Consolidated Student Activity Education Center	17,840	6.0	47	0.02
Golf Course Maintenance Facility	5,000	3.5	8	0.00
Automated Car Wash	1,500	1.0	1	0.00
Alter Building 7 Contracting	1,000	1.0	0	0.00
Maintenance Building/Boat Repair Facility	4,000	3.0	5	0.00
Recreational Center	4,000	3.0	5	0.00
Covered Boat Storage	9,000	4.0	16	0.01
Cabin Sites (10 each)	2,040	1.5	1	0.00
Concrete Tent Pads (8 each) with 6 Gazebos	1,485	1.0	1	0.00
Laundry/Shower/Restrooms Facility	800	1.0	0	0.00
Additional Roadways and Parking for Cabins and Tent Sites	36,400	12.0	193	0.10
Recreational Vehicle Sites (10 each) and Roadway	24,000	6.0	63	0.03
Marina Parking Expansion	150,000	22.0	1,455	0.73
Relocation of Petroleum Gas Tank	400	0.5	0	0.00
Evapotranspiration Fields	60,000	7.0	185	0.09
Pump Stations	200	0.5	0	0.00
Total Emissions:			1,987	0.99
* Based on emission factor of 19.2 pounds per acre per day derived from USEPA 1995. AFB Air Force Base ft ² square feet PM ₁₀ particulate matter equal to or less than 10 microns in diameter lbs pounds				

AIR POLLUTANT EMISSION CALCULATIONS, LAUGHLIN AFB, TEXAS
FUGITIVE DUST EMISSIONS, DEMOLITION PROJECTS

PM₁₀ Emissions from Demolition Projects

Description	Total Floor Area (ft²)	Emission Factor (lb/ft²)*	PM₁₀ Emissions (lbs)
Building 204	9,431	0.0073	68.8
Building 215	1,743	0.0073	12.7
Building 257	13,843	0.0073	101.1
Building 595	1,400	0.0073	10.2
Building 31600	2,336	0.0073	17.1
Building 255	41,634	0.0073	303.9
Building 256	30,562	0.0073	223.1
Total Emissions (lbs/yr):			736.9
Total Emissions (tpy):			0.37
<p>* Developed from methodologies in USEPA, 1988 and Murphy and Chatterjee, 1976.</p> <p>PM₁₀ particulate matter equal to or less than 10 microns in diameter</p> <p>ft² square feet</p> <p>lbs pounds</p> <p>tpy tons per year</p> <p>yr year</p>			

4B Del Rio News-Herald
Sunday, April 2, 2006

**Laughlin Invites Public Comments on the
Environmental Assessment for Multiple Projects at
Laughlin Air Force Base (AFB)**

Laughlin Air Force Base officials are making an Environmental Assessment (EA) resulting in a Finding of No Significant Impact (FONSI), in accordance with the National Environmental Policy Act, available to the public. Laughlin proposes to:

- a. Construct Aircraft Maintenance Operations Center
- b. Construct Squadron Operations Facility for 96th Flying Training Squadron Reserves
- c. Construct Consolidated Student Activity Education Center
- d. Construct Golf Course Maintenance Facility
- e. Construct Automated Car Wash
- f. Alter Building 7, Contracting
- g. Construct Various Facilities at the Southwinds Marina
- h. Demolish Buildings: 204, 215, 257, 595, 31600, 255, and 256.

This EA evaluates the Proposed Action and the No Action Alternative. The construction and demolition of the buildings are necessary for mission requirements and adequate living conditions.

A copy of the EA, including the FONSI, is available for public review and comment at the Val Verde County Library, 300 Spring Street, Del Rio, TX, and at the Laughlin AFB environmental library (Bldg 100).

Environmental impacts associated with the proposed action and alternatives were considered in the EA. Laughlin officials have determined the potential environmental impacts will not significantly impact the quality of the environment.

The public is invited to comment on this proposal. Comments should be submitted in writing by April 29, 2006 to:

47 CES/CEV
Attn: Mr. Ramon Flores
251 Fourth Street, Bldg 100
Laughlin AFB, TX 78843-5143

For more information, please call Mr. Ramon Flores at (830) 298-5694.

4B Del Rio News-Herald
Sunday, April 2, 2006

**Laughlin Invita Comentario Público sobre el
La Evaluación de Impacto Ambiental de Múltiples
Proyectos en la Base de la Fuerza Aérea Laughlin**

De acuerdo con el Acta Nacional de la Política Ambiental (o NEPA por sus siglas en inglés), los funcionarios de la Base de la Fuerza Aérea Laughlin están poniendo una Evaluación de Impacto Ambiental (EA por sus siglas en inglés) con un Resultado de Impacto No Significante (o FONSI por sus siglas en inglés) a disposición del público. Laughlin propone hacer lo siguiente:

- a. Construir un Centro Operativo de Mantenimiento de Aviones
- b. Construir una Instalación Operativa de Escuadrón para la Escuadrón 96 de Reserva para Entrenamiento de Vuelo
- c. Construir un Centro Educativo Consolidado para Actividades Estudiantiles
- d. Construir una Instalación para el Mantenimiento del Campo de Golf
- e. Construir un Túnel de Lavado Automata para Carros
- f. Modificar el Edificio 7 de Contratación
- g. Construir varias Instalaciones por el Puerto Deportivo Southwinds
- h. Demoler los Edificios: 204, 215, 257, 595, 31600, 255, y 256.

Esta Evaluación de Impacto Ambiental evalúa la Acción Propuesta y la Alternativa de la No Acción. La construcción y demolición de los edificios son necesarias para los requerimientos de la misión y para proveer una condición de vivienda adecuada.

Una copia de la Evaluación de Impacto Ambiental, incluyendo al Resultado de Impacto No Significante, se encuentra disponible para revisión y comentario público en la Biblioteca del Condado Val Verde, que se ubica en 300 Spring Street, Del Rio, TX, y también en la biblioteca ambiental en la Base de la Fuerza Aérea (Edificio 100).

Impactos ambientales asociados con la Acción Propuesta y las Alternativas fueron considerados en la Evaluación de Impacto Ambiental. Los funcionarios de Laughlin han concluido que los posibles impactos ambientales no afectarán de manera significativa a la calidad del medio ambiente.

Se está buscando la opinión del público sobre esta propuesta. Los comentarios deben ser entregados por medio escrito antes de la fecha límite del 29 de abril de 2006 a:

47 CES/CEV

Attn: Mr. Ramon Flores

251 Fourth Street, Bldg 100 • Laughlin AFB, TX 78843-5143

Para mayores informes, favor de comunicarse con Sr. Ramon Flores al teléfono (830) 298-5694.



DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

Colonel Tod D. Wolters
Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

Texas Water Development Board
Executive Administrator
Attention: Mr. Kevin Ward
1700 North Congress Ave. P.O. Box 13231
Austin TX 78711-3231

Dear Mr. Ward

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

Any questions concerning the proposal should be directed to our consultant, Science Applications International Corporation (SAIC). The point of contact at SAIC is Mr. Kent Wells. He can be reached at (210) 731-2217. We will receive comments through 29 April 2006. Please forward your written comments to Mr. Ramon Flores at the following address:

47 CES/CEV
251 Fourth Street
Laughlin AFB TX 78843

Sincerely

A handwritten signature of Tod D. Wolters in black ink, written in a cursive style.

TOD D. WOLTERS, Colonel, USAF

Attachment:
Environmental Assessment



E. G. Rod Pittman, *Chairman*
William W. Meadows, *Member*
Dario Vidal Guerra, Jr., *Member*

J. Kevin Ward
Executive Administrator

Jack Hunt, *Vice Chairman*
Thomas Weir Labatt III, *Member*
James E. Herring, *Member*

March 28, 2006

Colonel Tod D. Wolters
Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB, TX 78843-5230

Re: United States Air Force Environmental Assessment of Laughlin Air Force Base, Texas

Dear Colonel Wolters:

As a result of budget reductions incurred over the past 24 months, the Texas Water Development Board does not have resources to provide the information you requested regarding an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas.

Please feel free to call me at (512) 936-0813 if you have any questions.

Sincerely,

William F. Mullican, III
Deputy Executive Administrator
Office of Planning

c: ✓ Mr. Ramon Flores

Our Mission

To provide leadership, planning, financial assistance, information, and education for the conservation and responsible development of water for Texas.

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DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

Colonel Tod D. Wolters
Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

International Boundary and Water Commission
United States Section
Attention: NEPA Coordinator
4171 North Mesa, Suite C-100
El Paso TX 79902-1441

Dear NEPA Coordinator

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

Any questions concerning the proposal should be directed to our consultant, Science Applications International Corporation (SAIC). The point of contact at SAIC is Mr. Kent Wells. He can be reached at (210) 731-2217. We will receive comments through 29 April 2006. Please forward your written comments to Mr. Ramon Flores at the following address:

47 CES/CEV
251 Fourth Street
Laughlin AFB TX 78843

Sincerely


TOD D. WOLTERS, Colonel, USAF

Attachment:
Environmental Assessment



OFFICE OF THE COMMISSIONER
UNITED STATES SECTION

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

APR 24 2006

Mr. Ramon Flores
47 CES/CEV
251 Fourth Street
Laughlin AFB TX 78843

Subject: Draft Environmental Assessment (DEA) for the Multiple Projects at Laughlin Air Force Base, Texas

Dear Mr. Flores:

The United States Section, International Boundary and Water Commission (USIBWC) would like to thank you for the opportunity to comment on the DEA for the Multiple Projects at Laughlin Air Force Base, Texas. The following comments are offered for your use:

1. Page 1-4, last paragraph, second sentence. Delete "not" and insert "no."
2. Page 3-18, section 3.3.6.4 on wetlands and navigable waters. Regarding waters of the United States, the Clean Water Act (CWA) Section 404 and 10 compliance needs to be addressed. Consider whether there is an existing applicable nationwide permit or if meeting the conditions are such that no permit is required.
3. Page 4-13, section 4.3.4.1.5 on stormwater. The CWA Section 402 notice is filed with the Texas Commission on Environmental Quality (TCEQ) and not EPA. As you know, the TCEQ has been designated by EPA, and has developed their Texas National Pollution Discharge Elimination System program.

Please address future correspondence on any project to me using the above address. Additionally, correspondence regarding Amistad Reservoir should be sent to: Kenneth Breiten, Project Manager, HCR #3, Box 37, Highway 90 West, Del Rio, TX 78840. Should you have questions regarding the comments made in this letter or on any matter, please contact me at (915) 832-4702.

Sincerely,

A handwritten signature in black ink, appearing to read "Gilbert Anaya", is placed above the typed name.

Gilbert Anaya
Supervisory Environmental Protection Specialist
Environmental Management Division

cc: Mark Morgan, Amistad National Recreation Area, 4121 Veterans Boulevard, Del Rio, TX 78840.

The Commons, Building C, Suite 100 • 4171 N. Mesa Street • El Paso, Texas 79902
(915) 832-4100 • (FAX) (915) 832-4190 • <http://www.ibwc.state.gov>



DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

Colonel Tod D. Wolters
Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

U.S. Fish and Wildlife Service
Ecological Services Field Office, Field Supervisor
Attention: Mr. Robert Pine
10711 Burnet Road, Suite 200
Austin TX 78758-4460

Dear Mr. Pine:

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

Any questions concerning the proposal should be directed to our consultant, Science Applications International Corporation (SAIC). The point of contact at SAIC is Mr. Kent Wells. He can be reached at (210) 731-2217. We will receive comments through 29 April 2006. Please forward your written comments to Mr. Ramon Flores at the following address:

47 CES/CEV
251 Fourth Street
Laughlin AFB TX 78843

Sincerely



TOD D. WOLTERS, Colonel, USAF

Attachment:
Environmental Assessment



DEPARTMENT OF THE AIR FORCE
AIR EDUCATION AND TRAINING COMMAND

Colonel Tod D. Wolters
Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

USEPA Region 6
Federal Assistance Section (6E-FF)
Attention: Mr. Michael Jansky
1445 Ross Avenue, Suite 1200
Dallas TX 75202-2733

Dear Mr. Jansky

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

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47 CES/CEV
251 Fourth Street
Laughlin AFB TX 78843

Sincerely

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TOD D. WOLTERS, Colonel, USAF

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Texas Commission on Environmental Quality – Region 16
Acting Regional Director
Attention: Mr. Carlos Rubinstein
707 East Calton Rd., Ste. 304
Laredo TX 78041-3638

Dear Mr. Rubinstein

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

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Texas Commission on Environmental Quality
Attention: NEPA Coordinator
P.O. Box 13087
Austin TX 73711-3087

Dear NEPA Coordinator

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

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561 Liberty Drive, Suite 1
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Mayor of Del Rio
Honorable Dora G. Alcala
109 W. Broadway
Del Rio TX 78840

Dear Mayor Alcala

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

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Colonel Tod D. Wolters
Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

Del Rio Chamber of Commerce
1915 Veterans Blvd.
Del Rio TX 78840

Dear Chamber Representative

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

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561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

City of Del Rio
City Planner
Attention: Mr. Ray Rivas
114 W. Main
Del Rio TX 78840

Dear Mr. Rivas

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

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Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

Val Verde County Judge
County Courthouse
Attention: Honorable Manuel Fernandez
P.O. Box 4250
Del Rio TX 78841

Dear Judge Fernandez

The United States Air Force (USAF) is preparing an environmental assessment for the construction of multiple projects on Laughlin Air Force Base, Texas. As part of this effort, seven old, deteriorated buildings on the installation will be demolished and new construction activities will begin. Additionally, the USAF is proposing to construct various facilities at the Laughlin Southwinds Marina, and construct a new boat repair facility on Lake Amistad, Texas. The proposal, if implemented, would include demolition of some existing facilities. The attached Environmental Assessment describes the proposal per the Council on Environmental Quality guidelines pursuant to the National Environmental Policy Act of 1969. In accordance with Executive Order 12372, Intergovernmental Review of Federal Programs, we request your review and comments.

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Colonel Tod D. Wolters
Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

Val Verde County Commissioner
County Courthouse
Attention: Mr. Robert Nettleton
P.O. Box 4250
Del Rio TX 78841

Dear Commissioner Nettleton

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561 Liberty Drive, Suite 1
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The Middle Rio Grande Council of Governments
Attention: Environmental Representative
307 West Nopal
Carrizo Springs TX 78834

Dear Environmental Representative

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Commander, 47th Flying Training Wing
561 Liberty Drive, Suite 1
Laughlin AFB TX 78843-5230

Kickapoo Traditional Tribe of Texas
Attention: Mr. Juan Garza
HC1, Box 9700
Eagle Pass TX 78853

Dear Mr. Garza:

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National Park Service
Attention: Ms. Lauren Harnishfeger
1849 C Street, NW
Washington DC 20240

Dear Ms. Harnishfeger

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USDA – NRC'S
Del Rio Service Center
Attention: Mr. Clay Lindley
302 E. 17th Street
Del Rio TX 78840-3305

Dear Mr. Lindley

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